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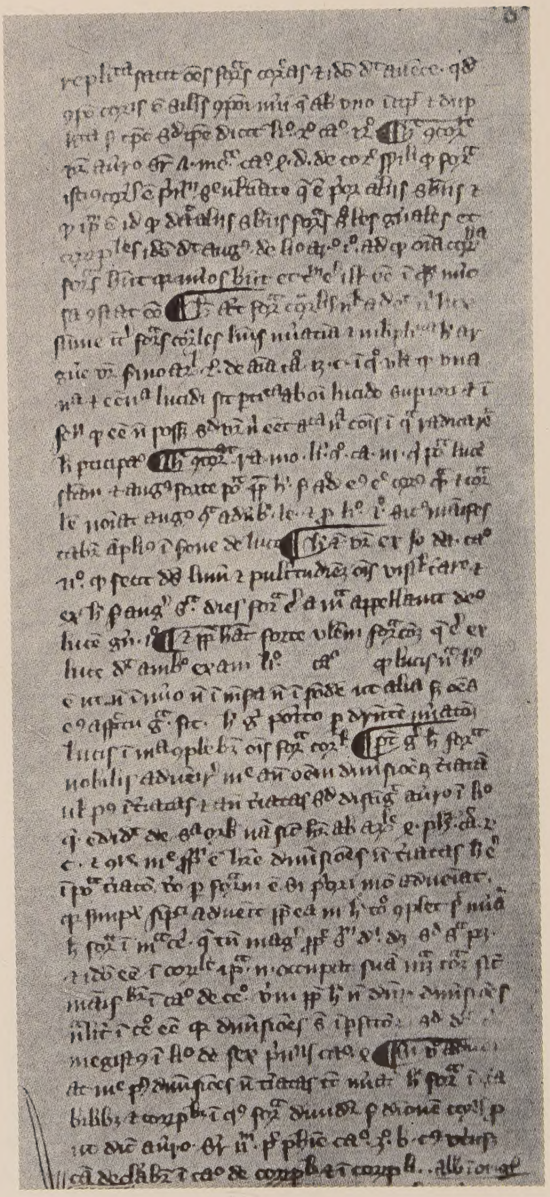

THOMAS OF YORKE'S *SAPIENTIALE*
A portion of the Florentine MS.

FRANCISCAN PHILOSOPHY AT OXFORD

In the THIRTEENTH CENTURY

By

orothea lizabeth

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NEW YORK
RUSSELL & RUSSELL · INC
1964

FIRST PUBLISHED IN 1930
REISSUED, 1964, BY RUSSELL & RUSSELL, INC.
L. C. CATALOG CARD NO: 64—10707

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PREFACE

WHY are the English ignorant of the history of their own philosophy previous to Francis Bacon? To this question, which was put to me casually by a German friend, the answer can hardly be that our minds are still influenced by the old notion, long discredited by the efforts of our best scholars, that the Middle Ages was a period in which the doctrines of Aristotle were interminably reiterated and dissected. It must rather be that we are unwilling to cope with the unsatisfactory condition of the available material, much of which is still in manuscripts or in texts either inaccessible or badly edited. It was in the hope of remedying to some extent this state of affairs that I undertook the researches of which the results, previously accepted for the Degree of Doctor of Philosophy in the University of Oxford, are now embodied in this book. In view of the extensive nature of the subject accepted for the Doctorate, namely, *The Doctrine of Matter and Form in the Early English Franciscans*, I have confined myself to six of the more important philosophers of the thirteenth century. I have also avoided as far as possible the many interesting by-paths that reveal themselves when matter and form are considered in a more comprehensive sense than in their original Aristotelian significance where they are employed chiefly for the interpretation of becoming in corporeal beings.

In dealing with the comparatively simple teaching of Grosseteste it has been possible to introduce my comment into my treatment of the text. But in attempting the more complicated philosophy of Thomas of York and his successors, the fear of confusing the functions of a commentator and an interpreter led me to abandon this method. I have, therefore, relegated the necessary comment upon them to a final chapter, in which I have also sought to indicate the more important sources of Scholasticism, to offer some incidental remarks, and to give some general conclusions. I trust that the plan that has been followed in the exposition of each philosopher has not forced his theories into an artificial coherency. Perhaps it should also be mentioned that the references to Aristotle have been identified in the 1550–2 Venetian edition of his works, since that edition seems to have been based on manuscripts extensively utilized by the Schoolmen.

My greatest obligations are to the university women of Canada and to Somerville College, Oxford, who by electing me to research fellowships have facilitated this work. I also wish to thank Prof. C. C. J. Webb, who supervised my work for the degree of D. Phil., Dame Emily Penrose whose great interest in this period of Oxford Philosophy has been a constant source of encouragement, Dr. J. G. Vance, who has read the proofs, Dr. A. G. Little, who has looked through the biographical sections, and the numerous continental scholars and librarians who have assisted me on various debatable points. I am especially indebted to the British Academy, to the British Society of Franciscan Studies, and to the Committee of Advanced Studies in the University of Oxford, who have made generous grants towards the publication of this volume. Finally, I should like to express my appreciation of the courteous attention which I have received from the officials and attendants of the British Museum Reading Room, whose aim seems to be the creation of ideal working conditions for serious students.

D. E. S.

SOMERVILLE COLLEGE, OXFORD,
August 1930.

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INTRODUCTION

WHATEVER the academic position of Oxford in the Middle Ages owed to the commercial importance of the city or to the recall of English scholars from Paris by Henry II in 1167, there can be little doubt that its rapid advance to fame in the thirteenth century should be traced to the coming of the Franciscans in the autumn of 1224. The first three men to arrive, namely, Richard of Ingworth, Richard of Devon, and William of Esseby, must have possessed outstanding personal attractions, for Eccleston[1] tells us that by the summer of 1225 'many honest bachelors and many nobles had entered the Order', and that their example was followed by a number of masters, including Adam Marsh and Adam Rufus of Exeter (or Oxford). Four years later the friars were numerous enough to lead Agnellus, the minister of England, to build a school and to secure as his first lecturer Robert Grosseteste, the most distinguished teacher at Oxford and the first Chancellor of the University. Grosseteste, who continued his lectures until his appointment to the bishopric of Lincoln in 1235, founded a special tradition of learning, a tradition that was excellent and powerful enough to attract students from the continent, to produce men of such a calibre that they were eagerly sought after as lecturers for the continental houses, and to make the Oxford convent the training centre for teachers for the English province.[2] Since this tradition in the thirteenth century is the theme of the following chapters, I will confine myself in this introduction to a brief sketch of the intellectual activities that preceded the founding of the Order and to an indication of the line of development that characterized the speculations of the Oxford Franciscans.

Previous to the twelfth century, that period which ushered in a renaissance at least as great as that of the fifteenth century, there had been occasional manifestations of the survival of that zeal for learning which had been widely propagated by Charlemagne at the inspiration of Peter of Pisa and Alcuin of York. Such manifestations appeared in the ninth century with Scotus Eriugena, whom M. de Wulf arbitrarily designates as the father of anti-Scholasticism [1] but who, in reality, by his translation of the works of the pseudo-Dionysius from the Greek, gave to the Schoolmen their fount of Neo-Platonism and also illuminated for them the intricacies of the Universals problem which had been raised but left unsolved by Porphyry in his *Isagoge*. In the tenth century the chief figure was Gerbert, afterwards Pope Sylvester II, a dialectician animated by a strong passion for Arabic science.[2] In the eleventh century the devotees of learning included Roscelin, who formulated the nominalistic solution of the Universals problem in contrast with the realism of his predecessors, Constantinus Africanus, the translator of several works of Galen, of Hippocrates, and of the Arabian medical writers,[3] and, above all, St. Anselm, a metaphysical theologian of outstanding genius. But, generally speaking, the speculative powers of these men were far superior to those of their contemporaries.

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[1] *De Adventu Fratrum Minorum in Angliam*, ed. A. G. Little, Paris 1909, pp. 27, 22.

[2] In the third quarter of the century the friars were sent as lecturers to other Orders, cf. A. G. Little, 'The Franciscan School at Oxford' in *Arch. Fran. Hist.*, 1926, pp. 820, 811.

In the twelfth century, however, the number of prominent thinkers rapidly increased. Some, like William of Champeaux, the exaggerated realist, and his brilliant pupil Abelard, the moderate realist, occupied themselves mainly with dialectic; others, such as the Victorines, infused new life into theological speculation by their judicious combination of the profane sciences and mysticism; while others, such as the members of the School of Chartres, transformed their dialectical and theological heritage by extending their interests to Neo-Platonism and to the physical and medical sciences, which had begun already in the time of Gerbert to percolate into the West from Arabic sources. The mention of the Arabs as the source of medieval science [4] brings us naturally to the question of the translations then available.

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[1] *Hist. de la Phil. Méd.*, Louvain 1924, t. i, p. 122.

[2] Cf. P. Duhem, *Le Système du Monde*, Paris 1913–17, t. 3, p. 164 f.; L. Thorndike, *Hist. of Magic and Experimental Science*, London 1923, vol. i, p. 697 f.

[3] Cf. L. Thorndike, *op. cit.*, p. 742 f; M. Steinschneider, 'Der europäischen Uebersetzungen aus dem Arabischen bis Mitte des 17 Jahrhunderts' in *Sitzungsberichte d. Kaiserl. Akad. d. Wiss., Philos. Hist. Klasse*, Vienna 1905, p. 9 f.

[4] It should be remembered that the Arabs themselves had been initiated into the sciences by the Christians of the Orient.

Before the twelfth century the only translation of Plato current in the west was that of the *Timaeus* (17a–53c) by Chalcidius, but in that century Aristippus (d. 1162) translated from the Greek the *Meno* and the *Phaedo* (*c.* 1156), as well as the fourth book of Aristotle's *Meteorologica*. Neo-Platonism had been inherited through the works of Apuleius, Augustine, Macrobius, Boethius, and, more especially, through the translation of the pseudo-Dionysius by Eriugena, but by about 1150 John of Spain and Gundissalinus translated the *Fons Vitae* of Avicebron and the *Metaphysica* of Algazel, and Gerard of Cremona made his version of the famous *Liber de Causis*,[1] a series of extracts from the *Elementatio Theologica* of Proclus.

Of the versions of other philosophical and scientific works available only a few by the more famous men can be mentioned here.[2] Adelard of Bath (1120–30) translated from the Arabic the *Introduction to Astronomy* by Albumasar, the astronomical tables of Al-Khowarizimi (1126), and the *Elements* of Euclid. James of Venice (*c.* 1128) produced translations from the Greek of Aristotle's *Topics*, the *Analytics* (*Prior* and *Posterior*), and the *Sophistic Elenchi*. Hermann the Dalmatian translated the *Planisphere* of Ptolemy. Robert of Chester (or of Retines), a friend of Hermann, whom he assisted in translating the *Koran* (1141) at the request of Peter the Venerable, Abbot of Cluny, made versions of several Arabian alchemical works, of the *Judicia* of Alkindi, and of the *Algebra* of Al-Khowarizimi (1145).[3] John of Spain (John Avendeath, *c.* 1150) translated the *Liber de Differentia Spiritus* of Costa-ben-Luca, the *De Intellectu* of Alkindi, the *De Scientia* of Alfarabi, the *Introduction to Astronomy*, and the *De Magnis Coniunctionibus* of Albumasar, the *Liber Prestigiorum* of Ibn Thâbit, the *Rudiments of Astronomy* by Alfraganus, the *Treatise on Practical Arithmetic* by Al-Khowarizimi, part of the pseudo-Aristotelian *Secretum Secretorum*, and (with the assistance of Gundissalinus)

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[1] According to Duhem, *op. cit.*, t. 3, p. 168, Gilbert de la Porrée (d. 1154) knew this work.

[2] For details see: M. Steinschneider, *op. cit.* 1905; A. Jourdain, *Recherches critiques sur l'âge et l'origine des traductions latines d'Aristote*, Paris 1843; M. Grabmann, *Forschungen über die Lateinischen Aristotelesübersetzungen des XIII Jahrhundert*, Münster 1916 (*Beiträge* series, Bd. 17, Hft. 5–6); C. Haskins, 'The Sicilian Translations of the 12th Century' in *Harvard Studies in Classical Philology*, 1910 and 1912, and 'The Reception of Arabic Science in England' in *Eng. Hist. Review*, Jan. 1915.

[3] Cf. Thorndike, *op. cit.*, vol. 2, p. 83.

Avicenna's *Sufficientia*, *De Anima*, *Metaphysica*, and *De Caelo*. Burgundio of Pisa translated *c.* 1151 the *De Fide Orthodoxa* of John Damascene and a number of medical works by Galen. Finally there was Gerard of Cremona (d. 1178) who produced versions from the Arabic of the *De Somno et Visione*, *De Intellectu*, and *De Quinque Essentiis* of Alkindi, the *De Syllogismo* of Alfarabi, the *De Crepusculis* of Alhazen, the *De Motu Accessionis et Recessionis* of Ibn Thâbit, the *De Diffinitionibus* and the *De Elementis* of Isaac Israeli, the *Canon* of Avicenna, the *De Sphaeris* of Theodosius, the *Almagest* of Ptolemy [1] (in 1175), the *Elements* and the *Data* of Euclid, a number of works by Galen and Hippocrates, and above all the following works of Aristotle—the *Posterior Analytics* (with the commentary of Themistius), the *Physics*,[2] the *De Caelo*, the *De Generatione et Corruptione*, and the *Meteorologica* (first three books).

Such, then, was the material available by the end of the twelfth century,[3] when Oxford had already become the home of students; but how much of it had been utilized at the University before Grosseteste's time it is impossible to say on account of the lack of writings.[4] Grosseteste, however, was perfectly familiar with the Neo-Platonic materials, with the Arabian scientific treatises and with the newly translated works of Aristotle; and what is more important, he contributed to the revival of learning by his commentaries on Aristotle, and by his translations from the Greek of the *Ethics*,[1] of the works of the pseudo-Dionysius, and of the *De Fide Orthodoxa* of John Damascene.[2] His familiarity with 'the philosopher' shows that while Paris was hampered by the condemnations of 1210, 1215, 1231, and 1245,[3] Oxford had already learnt to appreciate Aristotle. Hence it is to Grosseteste rather than to Albert the Great that we must assign the honour of having introduced Aristotle into the West. Again, as we shall see later,[4] it is to Thomas of York that we must credit the first critical interpretation of Aristotle and his Arabian commentators as well as of the Jewish philosophers Avicebron and Maimonides. It is hoped, then, that the following studies of our first two thinkers and those of their successors will show the exaggeration of the statement of Mandonnet: 'Tout le travail d'assimilation scientifico-philosophique, pendant la deuxième moitié du XIII^{e} siècle, est à peu près l'œuvre exclusive des Prêcheurs'—*Siger de Brabant*, Pt. 2, p. xxvii.

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[1] An anonymous translation from the Greek of this work, which had so great an influence on the Franciscans, was made *c.* 1160. The same person, collaborating with Eugenius the Admiral (the translator of the *Optics* of Ptolemy), produced versions of the *Data*, *Optica*, and *Catoptrica* of Euclid and the *Physica Elementa* of Proclus—cf. Haskins in *Harvard Studies* &c., 1910, p. 77 f. and 1912, p. 155 f.

[2] Duhem in *op. cit.*, t. 3, p. 188 f. holds that the *Physics* and *De Caelo* were known before 1150, but Grabmann (*op. cit.*) discredits this opinion.

[3] The works directly inherited from the ancients and the Fathers are too well known to be repeated here. For details see M. Manitius, *Gesch. der lateinischen Lit. des Mittelalters*, 2 vols., Munich 1911 and 1923; W. v. Christ, *Gesch. der Griechischen Lit.* 2 vols., Munich 1920 and 1924; K. Krumbacher, *Gesch. der byzantinischen Lit.* Munich 1897; J. Sandys, *Hist. of Classical Scholarship*, 3rd ed., Cambridge 1921.

[4] Of Theobald of Étampes, the first known master of Oxford, we have only a MS. (Bodl. 561, f. 64) of a short treatise against the monks written after 1119, and of Robert Pullen, who was lecturing on the Scriptures at Oxford, *c.* 1133, we have the eight books of the *Sentences* (Migne, *Patrol. Lat.* 186: 639 f.). But both of these were too early to use the new translations. Of Edmund Rich, the first recorded Doctor of Divinity of Oxford, and a lecturer in logic during the first quarter of the thirteenth century, no writings are extant—cf. H. Rashdall, *Universities of Europe in the Middle Ages*, Oxford 1895, vol. 2, pp. 520 f., 533 f. According to R. L. Poole, 'The Early Lives of Robert Pullen and Nicholas Breakspear' in *Essays in Medieval Hist. presented to T. F. Tout*, Manchester 1925, it is probable that Pullen lectured not at Oxford but at Exeter.

Roger Bacon, the next thinker whom we shall have to consider, shows the same fascinating complexity as Grosseteste and as Thomas of York, but in Pecham, who had seen in Paris the injudicious utilization of Aristotle which characterized many of the innovations of St. Thomas or of Averroes by Siger de Brabant, that curious personality whose historical appearance dates only from 1266–77,[1] we shall find a reaction in favour of an almost pure Augustinianism. Finally in Richard of Middleton and Duns Scotus, who wrote after the 1277 condemnation by Bishop Tempier of Paris, a condemnation that applied to many Thomistic theses, we may observe just that cautious but generous adaptation of Aristotle and the Arabians which affords a manifestation of the deeply rooted Scholastic convictions that all reason, pagan and Christian, was of divine origin and that the significance of all religious truth should be enriched by speculation.

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[1] A translation from the Greek of the *Ethics* to the end of Bk. III existed before 1215. Michael Scotus also made a translation of the complete work, and Herman the German, who in 1240 mentioned the translation by Grosseteste, rendered into Latin the middle commentary on the *Ethics* by Averroes and an ancient Alexandrian summary of the *Ethics*—cf. A. Pelzer, 'Les Versions latines des ouvrages de Morale conservés sous le nom d'Aristote' &c. in *Rev. néo-scol.*, 1921. To Michael Scotus we must also credit translations of Aristotle's *De Caelo* with the middle commentaries of Averroes, the *De Animalibus* with Avicenna's compendium, the *De Anima* with the middle commentary of Averroes, the *Metaphysics* with the great commentary of Averroes, and of the *Theorica Planetarum* (*c.* 1217) of Alpetragius. To Herman the German are due the versions of Averroes's middle commentaries on the *Poetics* and the *Rhetoric*. Some writers assign his translation of the Alexandrian summary to William of Moerbecke, who made translations from the Greek of most of Aristotle's works and introduced the *Politics* and the *Rhetoric* to the Westerns for the first time.

[2] Cf. pp. 10, 11.

[3] Cf. P. Mandonnet, *Siger de Brabant*, Louvain 1911, Pt. I, p. 16 f. The condemnation of 1215 did not apply to the logical works and the *Ethics* of Aristotle. It was not until 1254 that the Paris Faculty prescribed most of Aristotle's works as text-books.

[4] Cf. p. 50.

[1] Cf. Mandonnet, *op. cit.*, Pt. I, p. 78 f.

ROBERT GROSSETESTE

ROBERT GROSSETESTE, BISHOP OF LINCOLN

ALTHOUGH the title of this work mentions only Franciscan philosophy, I have thought it wise to include Bishop Grosseteste for several reasons. Firstly, as the first reader to the Oxford Franciscans, Grosseteste had a profound influence upon early Franciscan thinkers, especially his pupil, Adam Marsh, and Roger Bacon.[1] Secondly, he was held in high esteem by his contemporaries and his successors. Roger Bacon writes, 'solus dominus Robertus . . . prae aliis hominibus scivit scientias'[2] and again, 'Robertus Lincolniensis et frater Adam de Marisco qui per potestatem mathematicae sciverunt causas omnium explicare, et tam humana quam divina sufficienter exponere'.[3] Matthew Paris referring to Grosseteste's last days remarks, 'Domini Papae et regis redargutor manifestus, praelatorum correptor, monachorum corrector, presbiterorum director, clericorum instructor, scolarium sustentator, populi praedicator, incontinentium persecutor, scripturarum sedulus perscrutator diversarum Romanorum malleus et contemptor; in mensa refectionis corporalis dapsilis, copiosus et civilis, hilaris et affabilis; in mensa vero spirituali devotus, lacrimosus et contritus; in officio pontificali sedulus, venerabilis et infatigabilis.'[4] Trivet, a Dominican,[5] comments, 'Hic excellentis vir sapientiae fuit, ac lucidissimae doctrinae, totiusque exemplar virtutis . . . Doctor vero in triplici lingua eruditus, Latina, Hebraea et Graeca'.[6] Wycliffe ranking him with Plato and Augustine above Aristotle says, 'longe clariores philosophi, et in multis metaphysicis scientiis plus splendentes'.[1] Tyssington also remarks, 'Lincolniensis, cuius comparatio ad omnes doctores modernos est velut comparatio solis ad lunam quando eclipsatur.'[2] On the continent he was equally renowned, for Matthew Paris[3] tells us that Innocent IV, when annoyed with Grosseteste, was warned by the cardinals that Grosseteste was regarded as a great philosopher learned in Greek and in Latin.

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[1] Bacon was in Oxford during the period when Grosseteste was lecturing to the friars, and although he had not yet become a Franciscan, he may have attended Grosseteste's lectures. In any case, after entering the Order he would have access to Grosseteste's books, which had been bequeathed to the Oxford friars. On this bequest see A. G. Little's *The Grey Friars in Oxford*, Oxford 1892, p. 57 f.

[2] *Comp. Stud. Phil.*, ed. Brewer, London 1859, p. 472.

[3] *Op. Majus*, ed. Bridges, Oxford 1897, vol. i, p. 108; cf. *Op. Tert.*, chaps. 22, 23, and 25, ed. Brewer, London 1859.

[4] *Chron. Maj.*, ed. H. Luard, London 1880, vol. 5, p. 407.

[5] Grosseteste must have exercised a considerable influence on the Dominican Order, for not only had Jordan of Saxony, the second general of the Order, met him at Oxford, but John of St. Giles, except when visiting Paris and Cologne, was continually with him. As F. S. Stevenson in his *Robert Grosseteste* (London 1899, p. 183) suggests, it is inconceivable that John did not impart some of the views of his renowned master to Albert the Great; at any rate, both Albert and St. Thomas would be indirectly influenced by William of Auvergne, the intimate friend of Grosseteste.

[6] *Annales*, ed. T. Hog, London 1845, p. 242.

Thirdly, I include Grosseteste because it seems that in him the Augustinian thought first encounters the philosophy of Aristotle. Profoundly versed in the theories of Augustine, and citing as familar Plato, the later pagans, the early Fathers, Boethius, John Damascene, Bede, St. Anselm, and St. Bernard, Grosseteste is, nevertheless, the first Englishman to assimilate the new learning of Aristotle and the Arabians.[4] His commentaries on the *Posterior Analytics*, the *Sophistic Elenchi*, the *Physics*[5] and the *Metaphysics*[6] (no longer extant) are the earliest ones originating in the Christian occident. His translation from the Greek of the complete *Ethics*, mentioned by his contemporary, Hermanus Alemannus,[7] and by Scotus,[8] was used by Thomas of York[1] as well as by Albert the Great and by St. Thomas. Were these not sufficient to prove Bacon's error of supposing that Grosseteste knew little of Aristotle and forsook him for experiment,[2] we have also Grosseteste's numerous citations from the other newly introduced works of Aristotle, such as the *De Caelo, Meteorologica, De Generatione et Corruptione, De Sensu, De Animalibus*, and the *De Anima*—cf. p. 3 f.

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[1] *Trialogus*, ed. G. Lechler, Oxford 1869, p. 84.

[2] W. Shirley, *Fasciculi Zizaniorum*, London 1858, p. 135.

[3] *Op. cit.*, vol. 5, p. 395.

[4] According to C. Haskins ('The Reception of Arabic Science into England' in *Eng. Hist. Rev.*, 1915, p. 68) Alexander Neckham had previously cited the *De Gen. et Corr.*, *Meteor.*, *Phys.*, *Met.*, and *Nich. Ethics* of Aristotle.

[5] This is really a summary of the *Physics*. Baur in his edition of certain *opuscula* of Grosseteste, Münster 1912 (*Beiträge* series, Bd. 9, p. 19* f.), doubts the genuineness of the printed editions of the *Physics* and is inclined to accept MS. Mert. 295 ff. 120^ra–45^ra because of the greater similarity in doctrine (e.g. the non-eternity of the world and light as the origin of corporeity) between it and the *opuscula*.

[6] It is mentioned as belonging to Durham College, Oxford, in 1315, cf. *Collectanea*, Series iii, p. 37, Oxf. Hist. Socy., 1896. Grosseteste's citation of bk. 12 in various works shows that he knew the *Metaphysica Nova*. M. Grabmann, *Forschungen über die lateinischen Aristotelesübersetzungen des XIII Jahr.*, Münster 1916 (*Beiträge* series, Bd. 17, p. 138), apparently ignoring Grosseteste, says that the first quotation from this translation was made about 1243. I am inclined to put its introduction earlier, for though we have no certain dates for the works of Grosseteste in which the translation is cited, there is no reason to crowd them into the last years of his busy life when he was absorbed in his Latin translations from the Greek.

[7] Cf. A. Pelzer, 'Les Versions Latines des ouvrages de Morale conservés sous le nom d'Aristote en usage au $xiii^e$ siècle,' in *Rev. néo-scol.*, 1921, p. 378.

[8] Cf. *Ox.* ii, d. 3, q. 8, n. 13. For other works mentioned by Scotus, see p. 280.

To the Arabian commentators on Aristotle Grosseteste does not seem particularly indebted, for his interests tended more to Arabic science. He utilizes the *Almagest* of Ptolemy, the *De Motu Accessionis et Recessionis* of Ibn Thâbit, and the *Theorica Planetarum* of Alpetragius; and although there is a strong resemblance between his cosmogony and that of Avicebron the Jew he never cites Avicebron; it is impossible to say whether he knew the version of the *Fons Vitae* made by Gundissalnus and John of Spain about 1150. It is highly probable that his Neo-Platonism was derived only from Augustine, Dionysius, and the compiler of the *Liber de Causis*, and possibly indirectly, from the school of Chartres, the centre of Neo-Platonism. But of the transformation of these sources, of his originality in natural science, his exaltation of mathematics or his enthusiasm for the study of languages,[3] it is not my concern to speak further.

My final reason for including Grosseteste in this work is the fact that there has been no attempt to expound in English the philosophy of this first Chancellor of Oxford. Stevenson[4] treats of him from an historical and theological view, Pegge[5] is useful chiefly for his bibliography and his general historical background, and Perry,[6] apart from being uncritical, confines himself to the ecclesiastical policy of Grosseteste. The only noteworthy foreign work is the exposition by Baur,[7] but this again stresses the scientific side and the problem of freedom. Duhem [1] devotes himself to the mathematical and physical particulars of Grosseteste's cosmology.

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[1] Cf. Pelzer, *op. cit.*, p. 403.

[2] *Comp. Stud. Phil.*, p. 469.

[3] Speaking of this, A. G. Little in 'The Franciscan School at Oxford' in *Arch. Fran. Hist.*, 1926, p. 809 says, 'a letter to the Abbot and convent of Peterborough, written in the early years of his episcopate, gives us a glimpse of him reading and translating Greek as a relaxation during a few days' respite from his official labours'.

[4] *Op. cit.*

[5] *The Life of Robert Grosseteste*, London 1793.

[6] *The Life and Times of Robert Grosseteste*, London 1871.

[7] *Die Philosophie des Robert Grosseteste*, Münster 1917 (*Beiträge* series, Bd. 18).

THE LIFE OF GROSSETESTE [2]

Grosseteste was born about 1175 at Stradbroke in Suffolk. He studied at Oxford, and having become proficient in law, medicine, and the natural sciences, he soon acquired distinction as a teacher at the University.[3] Shortly after 1208 he was appointed Master of the Oxford schools, the holder of which office was first termed 'Chancellor' in the Legatine Ordinance of 1214. Grosseteste then held in succession the archdeaconries of Chester, Northampton, and Leicester until 1232, when he decided to retain only his prebend at Lincoln. Between 1229 and 1235 he was the first reader in theology to the Franciscans. In 1235 he accepted the bishopric of Lincoln, and for some years his attempt to reform morals and clerical discipline brought him into conflict with his chapter and the king. In 1250 and 1251 he found occasion to openly criticize the financial policy of Innocent IV and the exactions of Henry III. When he died on 9 October 1253, Grosseteste had become recognized as a great ecclesiastical statesman and a pioneer of a humanistic and scientific movement.

THE WRITINGS OF GROSSETESTE

With reference to Grosseteste's printed works I have followed the judgement of Professor Baur regarding their authenticity and have rejected only the *De Anima* and the *Summa Philosophiae*.[4] In addition to his edition of the *opuscula*, I have used:

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[1] *Le Système du Monde*, Paris, 1913–19, 5 vols.

[2] For details see Grosseteste's own letters, those of Adam Marsh, the chronicles of Eccleston, Matthew Paris, Trivet, and Capgrave, and Stevenson, *op. cit.*

[3] There is no contemporary evidence for the supposition that Grosseteste continued his studies at Paris.

[4] Since I have ignored this *Summa*, which Baur in his edition of Grosseteste's *Opuscula*, Münster 1912 (*Beiträge* series, Bd. 9, p. 126*), regards as 'one of the most significant and interesting works of the thirteenth century Oxford school', a few remarks on this long treatise may not be out of place. Baur rejects the possibility of Grosseteste's being its author chiefly for the following reasons (pp. 133*–41*): (1) Grosseteste died in 1253 but the *Summa* mentions the death of Simon de Montfort in 1264 and of St. Louis in 1270, (2) It cites works

The Commentary on the Posterior Analytics, Venice, 1552. It bears the title: *Aristo Posteriorum Libri, una cum Linconiensi atque Burleo fidelissimis interpretibus. His adiecimus Pamphili Montii Bononiensis glossemata, in marginibus apposita*, and at the beginning of the text has, *Divi Roberti Linconiensis Archiepiscopi Parisiensis* (sic) *in Aristotelis Posteriorum Analiticorum Libros, Elegantissima Commentaria feliciter incipiunt.*

The Commentary on Dionysius. I have consulted only the *De Mystica Theologia* commentary which appears in the *Opera Dionysii*, Argentina, 1502, ff. 264ᵛ–71ᵛ. The best MS. of the remaining three sections is Paris Bib. Nat. cod. lat. 1620, but the script is extremely small and from the contents of the original I have ventured to presume that little of value for the problem of matter and form would be found there. For the same reason I have ignored the numerous theological manuscripts of Grosseteste.

The *Hexaëmeron* MS. Brit. Mus. Reg. 6. E.V. This vellum manuscript in a clear hand of the late fourteenth century has

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of Albert the Great which were only completed *c.* 1256, (3) Its terminology is much more Aristotelian than that of Grosseteste, (4) Its detailed teaching on ideas, on matter, and on form, its systematic division of philosophy, and its treatment of truth and of light is unlike Grosseteste's work, and (5) Its earliest ascription to Grosseteste occurs in the beginning of the fourteenth century.

P. Duhem, *op. cit.*, vol. 3, p. 460 f. was struck by the resemblance between the author's praise of his master (Baur's edition, p. 589) and the language of Bacon in *Opus Majus*, ed. Bridges, i, p. 189, as well as by the similarity between its doctrine of matter and form and that of Bacon in the *Communia Naturalium* and between its view that Aristotle did not definitely teach the eternity of the world and that of Bacon who wanted to defend Aristotle from the charge of doing so. Yet, owing to the confused treatment of astronomical problems in the *Summa*, Duhem thinks the work cannot be that of Bacon but is by one of his disciples.

A. G. Little, too, in 'Roger Bacon's Life and Works' in *Roger Bacon Essays*, Oxford 1914, p. 28, thought that the *Summa* was written by an unknown Englishman *c.* 1265, and that if it was not by Bacon himself, it was composed by someone in closest sympathy with him. But I understand that Professor Little now has reasons for thinking that the work was probably not by a Franciscan but by a secular.

In the hope of determining its author, in reading the MS. of Thomas of York's *Sapientiale*, I have often referred to the treatment of the same problems in the *Summa*, but I can only conclude that there is no ground for attributing it to Thomas, especially in the face of its admiration for Albert the Great. Certain vaguely similar theories and phrases, e.g. the uncommon term 'anitas' (derived from 'an sit'), suggest that the author of the *Summa* might have known the *Sapientiale*.

251 folios measuring 17″×11¾″. Elaborate gold-leaf borders are found on ff. 6, 70, 136, 185, and 228—the first of which has a portrait of Grosseteste. On fol. 1r is *Liber ecclesie sancte Marie de Merton.* Our treatise begins on f. 140rb with—*omnes scientia et sapientia materiam habet,* and ends on f. 184vb with—*sicut in Adam omnes moriuntur, sic et in Christo omnes vistificabuntur* (sic). *Quam vistificationem* (sic) *nobis concedat universorum conditor. Amen.* The colophon runs—*Explicit exameron secundum Lincolniensem.*

The Letters (ed. H. Luard, London 1861) have served only to give me a hint of Grosseteste's intellectual associates.

Before passing to the doctrine of matter and form, in self-defence I must explain that Grosseteste's philosophy, which involves the entire universe, is naturally of a fragmentary character,[1] and that I have had in the main to construct it piecemeal from widely scattered passages that cannot be justly called precise. Unfortunately the *Commentary on the Metaphysics*, which would have provided the real key to his thought, has been lost.

THE THEORY OF BECOMING

I propose in the first place to consider Grosseteste's dynamical theory of the universe, for, following Augustine, he, like all his Franciscan successors, regarded *becoming* as inherent in all things. Potency, for him, is the mark of every contingent nature, being manifested in participation in existence, in mutability, and in power to seek the good. Only God *is*, in the sense that He alone can be said to *be* absolutely; hence all such terms of analysis as potency and act, matter and form, cause and effect, must be regarded as indicating relative being.

The metaphysical analysis of becoming or movement yields for Grosseteste two factors, namely, potency and act. The potency of a thing means its aptitude to receive perfections, the actuality its acquired perfections, and the transition of the potency into actuality is movement or becoming.[1] Being an aptitude, that is to say, possessing the incomplete germ of future actualization, potency is only relative non-being. Consequently, like Augustine, Grosseteste maintains that potency may be regarded as both passive and active; it is passive in the sense of being the subject of action, but it is active in reference to that which it is to become—128: 36,[2] *Hex.* f. 151ʳa. In other words, it is active because it has some inner pre-adaptation responding to every form that it is capable of receiving. Thus he writes, 'Embryo intenditur propter hominem et est via in hominem' (128: 10), meaning thereby, that this embryo is adapted only to the nature of man and not to that of any other being. Such a conception of the activity in potency avoids the impossibility of a transition from a *pure* potency to actuality, and places these terms in essential relation to one another.[3] Grosseteste's assertion that potency is not 'quod nihil habet actu, sed quod non omnino habet actum' (123: 10) continued to be one of the chief tenets of the Franciscan philosophers who, refusing to regard potency as a mysterious nothingness from which the new being emerges, declared it to be not being only in the sense of not being thus or thus.

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[1] This is hardly to be wondered at when we consider his profound interests in science and in philology; his vast literary activities covering, in addition to his philosophical and theological works, translations of Aristotle's *Ethics*, of the *De Fide Orthodoxa* of John Damascene, of Dionysius, and of the *Testament of the Twelve Patriarchs*, poetical compositions, and treatises on husbandry and politics; his concern for music and ecclesiastical architecture; his extensive political activities; his strenuous visitation of his extremely large diocese, his Chancellorship of Oxford University, his lectures to the Franciscans, and his work as tutor to the sons of Simon de Montfort.

This potency and actuality involved in becoming are frequently called the material and formal causes of change—121: 15. The name 'material cause', however, may mean more than the potency or matter *from* which a thing is produced; it may be applied to the matter *in* which the change is accomplished. This second use Grosseteste regards as equivocal, since that which is in potency is really a form or *ens actu*: but if such an *ens* is termed 'matter', it will be either *propinqua*, as when flesh is said to be the matter of an animal, or *remota*, as for example, the four elements. Matter in the proper sense is the most remote *yle* or primordial matter—126: 10.

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[1] The *becoming* characteristic of the various grades of beings in the universe is described in the sections on these grades.

[2] When page-numbers are cited without a title, they refer to Baur's edition of the *Opuscula*, Münster 1912 (*Beiträge* series, Bd. 9).

[3] At times Grosseteste tends to regard matter as purely passive, but this is only when he is considering it from the abstract and static point of view (122: 1), or when he is opposing it either to completed creation (*Hex.* f. 166ᵛa) or to God as the Creator (*Hex.* f. 143ᵛb). St. Thomas, who constantly regards matter as pure potency and as something having no *esse secundum se* (cf. *S. Theol.* I, q. 15, a. 3, ad 3; I, q. 54, a. 3, ad. 3; I, q. 115, a. i, ad. 2), is in the position of having to say that forms are educed from something that has no proper existence, and that God has no idea of matter 'aliam ab idea compositi'.

The unifying natural correlative of a material cause is the formal cause [1] which unites with matter to produce the composite and so originates magnitude. 'In rebus autem corporalibus invenimus quod materia prima et forma prima in seipsis sunt simplices sine situ et magnitudine, sed hae infinities se replicantes et quodammodo gignentes extendunt se in magnitudine et situ. Natura autem materiae primae et formae primae in seipsis simplex, et essentia secundum se replicabilis vere unitas est'—*Post. An.* i, c. 17, f. 24^{r}b.[2] For Grosseteste, the formal cause is always the more important. 'Forma est vere essentia ipsius rei et dat esse proprie. Materia autem dat proprie potentiam essendi,' and later, 'Dico quod forma est finis materiae et quod materia in veritate non efficit formam, sed est occasio vere efficientis ut vere efficiens agat et inducat formam in materia'—*Post. An.* ii, c. 2, f. 35^{r}a, and lastly, 'Forma est vere res ipsa; materia habet in se descriptionem causati per modum debiliorem et ignobiliorem, quia forma elevat materiam et ducit eam de imperfecto ad perfectum. Finis vero est causa formae et forma est causa materiae, et materia non est nisi occasio formae'—*ibid.* ii, c. 2, f. 34^{r}b. Hence form is the essence of a thing or that which makes it to be what it is—108: 14.[3]

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[1] Grosseteste here uses 'form' in its proper sense, namely, as that 'quo res est, ita quod sit coniunctum rei et non exemplar'—124: 22. This latter 'exemplary' use, which covers the universal both as a principle of human knowledge and as an archetype in the Divine Mind, will be treated under the sections on God and on Psychology. I propose to ignore 'accidental' forms since Grosseteste does not seriously concern himself with them.

[2] In *Hex.* f. 166^{v}b he speaks of the formed matter, the materialized form, and the property of the composite itself as being an image of the three-fold nature of the Trinity, which is found in all things.

[3] This might lead to the identification of the form and the existent being, and certainly Pamphilus Montius Bononiensis, the author of the marginal notes in Grosseteste's *Comm. on the Post. An.*, does say (cf. f. 8^{r}) that form is that which expresses the individuality of a being and concludes that Grosseteste regards form as the principle of individuation; but, in point of fact, the problem of what distinguishes the form as involved in this composite from a like form as involved in any other composite did not occur to Grosseteste, unless he discussed it in the lost *Commentary on the Metaphysics*.

It goes without saying that the assertion 'multitudo enim numeralis non

Moreover, since form is the inner principle of a being in virtue of which movement occurs, it is identifiable with the end of that being, for 'finis est actus et operatio egrediens a forma interiori, et secunda perfectio rei'—*Post. An.* ii, c. 2, f. 34^rb.

Although matter or potency supplies the germ of future actualization, the existence of form may be said to be due to the activity of the efficient cause, because all movement presupposes a mover—cf. 121: 32 and 129: 20. Indeed, on p. 127: 4 Grosseteste interprets the potential existence of form as an existence in the efficient cause,[1] and naturally is led to refer to the efficient cause as 'primum principium motus'.—*Post An.* ii, c. 3, f. 35^vb. Since change involves the actualization of this potential form in the efficient cause, that which the efficient cause produces will resemble it by what it has in act and will differ by what it has in potency, i.e. by its matter—121: 6. That which is produced is called the final cause of the process because as something desired, it moves the efficient cause and is a good *per se*—121: 18. Just as the efficient cause may be considered from different points of view, being *propinqua* when, for example, fire causes fire, and *remota* when the heavens cause fire, so too the final cause has different meanings according as it exists in the mind of the agent or as it is the realized end—125: 26. Again, in the mind of the agent, it may be the true good, i.e. as it exists in the first Intellect, or it may be the image of this true good, and then it is not the true end, but only its likeness. As the realized end, it is almost indistinguishable from form, if form be regarded as the inner principle in virtue of which movement occurs.

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est nisi propter materiam' (99: 7) does not touch the problem, but merely means that several things are able to exist in the material realm because incorporated in matter and not that matter constitutes multiplicity. Again when Grosseteste touches on the problem in *Post. An.* i, c. 17, f. 22^va by asking how the universal, which in itself is neither one nor many, becomes multiplied, he simply says, 'puto quod unitas universalis in multis particularibus assimilatur unitati lucis in luce gignente et genita'.

[1] Although Grosseteste does not discuss the *exitus* of forms, it is clear that he regards both the material and the efficient cause as contributing to the existence of form. 'Si enim esset architector, et natura non ministraret ei materiam domus, cum ipse architector non posset sibi facere materiam, non diceretur esse domus in potentia. Similiter si esset materia domus, et non esset possibile ut esset architector, non diceretur domus esse in potentia. Igitur rem esse in potentia est ipsam esse in sua causa a qua possibile est, ut veniat in complementum'—127: 15.

If we turn now to Grosseteste's view of change as something actually taking place, we shall see in it marked traces of the old Plotinian doctrine of the emanation of force. Every natural agent, he thinks, sends forth its virtue or power equally in all directions, and so acts according to lines, angles, and figures.[1] The power thus emitted is called 'species' or 'similitudo' (60:18) and may come from the surface of the agent or from every part of it. When this species comes into contact with a recipient, an assimilation occurs—the assimilation varying with the nature of the recipient, as, for example, the same power of the sun dries mud, dissolves ice and, in the sense of sight, produces what might be called a spiritual operation—60: 24. The assimilation is due to the species informing the matter of the recipient either gradually, as in the case where the agent and that which is produced are of the same nature, or suddenly, if the change is between contrary natures—*Post. An.* i, c. 2, f. 13^{r}b.

Although Bacon's detailed theory of the propagation of force (cf. p. 124 ff.) is not to be found in Grosseteste, we may safely conclude that he would reject any theory of the species being material particles passing from agent to recipient. For, firstly, he identifies power with quality, saying, 'Non enim est differentia inter qualitatem et virtutem nisi in respectu, quia qualitas dicitur absolute respectu istius, cuius est virtus; virtus vero dicitur in quantum eadem qualitas ad effectum alterius extenditur, sicut differt nomen formae et naturae'—123: 4. Secondly, his view of every natural efficient cause as that which does not act through its essence or as that in which the *quod efficit* is to be distinguished from the *quo efficit* (122: 8) would discountenance any material transition. Lastly, his doctrine of the propagation of light shows that he conceives the transition as *mutatio* rather than *motus*—an important fact, when we consider that he regards light as being the cause of local movement, of alteration, and of all corporeal appetite. Let us turn now to his theory of light.

Grosseteste maintains that after the creation out of nothing of unformed matter (*Hex.* f. 143^{v}b), the next [1] thing brought into existence was light, the source of all subsequent beings. From everyday observation he could conclude that the activity of light presupposes a dynamical centre from which a luminous sphere is instantaneously [2] generated, and that diffusion and self-multiplication are fundamental properties of light.[3] Therefore, given *materia prima* and *lux*, he asserts, 'Lux multiplicatione sui infinita in omnem partem aequaliter facta materiam undique aequaliter in formam sphaericam extendit, consequiturque de necessitate huius extensionis partes extremas materiae plus extendi et magis rarefieri, quam partes intimas centro propinquas. Et cum partes extremae fuerint ad summum rarefactae, partes interiores adhuc erunt maioris rarefactionis susceptibiles.

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[1] On p. 59: 36 he writes, 'Utilitas considerationis linearum, angulorum et figurarum est maxima, quoniam impossibile est sciri naturalem philosophiam sine illis'. For the variation of power according to direction, reflection, and refraction, see L. Baur, *Die Philosophie des Robert Grosseteste*, Münster 1917 (*Beiträge* series, Bd. 18, p. 100 f.)

'Lux ergo praedicto modo materiam primam in formam sphaericam extendens et extremas partes ad summum rarefaciens, in extima sphaera complevit possibilitatem materiae, nec reliquit eam susceptibilem ulterioris impressionis. Et sic perfectum est corpus primum in extremitate sphaerae, quod dicitur firmamentum, nihil habens in sui compositione nisi materiam primam et formam primam. Et ideo est corpus simplicissimum quoad partes constituentes essentiam et maximam quantitatem, non differens a corpore genere nisi per hoc quod in ipso materia est completa per formam primam solum' —54: 11. Because this *lux*, as the first form, originates space and is the source of corporeity in a matter which, being unqualified, cannot of itself have dimensions, Grosseteste writes, 'Formam primam corporalem, quam quidam corporeitatem vocant, lucem esse arbitror'—51: 10. The first-formed body or the firmament is not a chaotic mass but a production so perfect and noble that it resembles the separate forms or intelligences. Strictly speaking it is corporeity, but a corporeity of the highest type, which is to be identified with light as being highly simple and approaching spirit—52: 10; *Hex.* f. 150ʳa.

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[1] The sequence is one of origin and not of time, for on p. 51: 22 and *Hex.* f. 146^{r}b he says that matter and form are inseparable. Grosseteste is not speaking here as a theologian, since, as Augustine says, creation could only be one single act. Indeed, throughout the *De Luce*, where most of the 'light metaphysics' is chiefly expounded, the cosmogony of *Genesis* is disregarded.

[2] This instantaneous generation of light, which had been held by Aristotle (cf. *De Sensu*, c. 6 and *De Anima*, ii, 418 b 20), was rejected by Bacon, cf. *Op. Maj.* ii, 526 f.

[3] Similarly *Hex.* f. 147^{v}b runs, 'Est itaque lux sui ipsius undique naturaliter multiplicativa et ut ita dicam generativa quidam sui ipsius quodammodo de sui substantia. Naturaliter et enim lux undique se multiplicat gignendo, et similiter cum est, generat. Quapropter replet circumstantem locum subito. Lux enim prior secundum locum gignit lucem sequentem et lux genita similis gignitur et est et gignit lucem sibi proximo succedentem, et illa succedens adhuc succedentem ulterius, et ita consequenter. Unde in instanti unus punctus luminis potest replere orbem lumine.' Cf. *Post. An.* ii, c. 4, f. 38^{v}b, and *De Luce*, p. 51: 11.

From the firmament, this light, now termed 'lumen' in place of 'lux', yet still called a 'corpus spirituale, sive mavis dicere spiritus corporalis' (55: 2), is instantaneously reflected to the centre of the sphere and gathers together the existing mass below the firmament, at the same time increasing both the density of the interior parts and the rarity of the exterior parts. When the rarefaction gets beyond a certain point,[1] a second sphere arises. 'Quod lumen in suo transitu non dividit corpus per quod transit, ideoque subito pertransit a corpore primi caeli usque ad centrum. Nec est eius transitus, sicut si intelligeretur aliquid unum numero transiens subito a caelo in centrum—hocenim forte est impossibile—sed suus transitus est per sui multiplicationem et infinitam generationem luminis. Ipsum ergo lumen a corpore primo in centrum expansum et collectum molem existentem infra corpus primum congregavit; et cum iam non potuit minorari corpus primum, utpote completum et invariabile, nec potuit locus fieri vacuus, necesse fuit ipsa in congregatione partes extimas molis extendi et disgregari. Et sic proveniebat in intimis partibus dictae molis maior densitas, et in extimis augmentabatur raritas; fuitque potentia tanta luminis congregantis et ipsa in congregatione segregantis, ut ipsas partes extimas molis contentae infra corpus primum ad summum subtiliarent et rarefacerent. Et ita fiebat in ipsis partibus extimis dictae molis sphaera secunda completa nullius impressionis ultra receptibilis. Et sic est complementum et perfectio sphaerae secundae; lumen quidem gignitur ex prima sphaera, et lux, quae in prima sphaera est simplex, in secunda est duplicata'—55: 3.

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[1] It never occurred to Grosseteste to ask why the diffusion of light in the first instant stops at a particular circumference and there forms the firmament. Bacon in *Comm. Nat.* (ed. R. Steele, Oxford 1909, p. 38: 15) calls the view that it is an innate property of light to acquire a spherical shape a puerile one, and adds that rays continue in a direct line unless they meet with a diversity of medium, which alone will cause reflection or refraction.

In the same way, the light reflected from the second sphere produces the third sphere, and so on, until finally the nine celestial spheres and those of the four elements come into existence through a process of condensation and rarefaction, each sphere becoming more complex and more dense than the preceding one on account of receiving less spiritual and simple light—56: 37. From the foregoing, then, it is clear in what sense Grosseteste holds that light is the instrument by which the First Mover brings into existence all corporeal things, and in what sense he holds (56: 19) that the superior bodies are the species and perfection of inferior bodies, or that all bodies exist virtually in the first body (58: 20).

The primary characteristic of the universe, then, is extension of matter according to three dimensions or corporeity [1]—a kind of imperfect form possessed by all beings anterior to their chief specific form.[2] It is in this way that we must understand the words 'omnia esse unum ab unius lucis perfectione' for although all bodies originate from light, they are not of the same species any more than all numbers are of the same species—57: 3. Yet not only as the *forma corporeitatis* is light a unifying principle in the universe; it is so also as a principle of activity. 'Dico enim, quod forma prima corporalis est primum motivum corporale. Illa autem est lux, quae cum se multiplicat et expandit absque hoc, quod corpulentiam materiae secum moveat, eius pertransitio per diaphanum fit subito et non est motus, sed mutatio—Quando vero est lux expandens se in partes diversas, ista incorporatur materiae, si corpulentiam materiae secum extendit, et fit rarefactio materiae vel augmentum. Quando vero congregatur lux in se cum corpulentia materiae, fit condensatio vel diminutio. Cum vero lux secundum unam viam se generat, secum trahens materiam, fit motus localis—

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[1] Bacon stresses still more this view of corporeity as a kind of continuity in nature.

[2] I take it that 'species et perfectio corporum omnium est lux' (56: 36) means that bodies derive their corporeity from light and not that the ultimate specific form is to be identified with light. This is the view of Bonaventura: 'Duplex est informatio materiae corporalis, quaedam generalis, quaedam specialis; generalis per formam communem omnibus corporibus, et haec est forma lucis, specialis vere per alias formas, sive elementares sive mixtionis'—*Sent.* ii, d. 13, vol. 2, p. 310 of Quaracchi edition.

Cum vero lux, quae est intra materiam, mittatur foras et quod foris est, immittit (*sic*) intus, fit alteratio. Et in hoc patet, quod motio corporalis est vis multiplicativa lucis. Et hoc idem est appetitus corporalis et naturalis'—92: 6. In fact, light is a power flowing like a falling cascade from the Divine Being through the intelligences who move the heavenly spheres directly and the lower elements indirectly through these spheres in whose corporeal form the elements share [1]—cf. 57: 9 and 91: 8; but light being a power created by God, Grosseteste does not need to distinguish between emanation of power and of substance.

Let us pause for a moment over this peculiar doctrine of light as the form of corporeity and the principle of action in all things,[2] for here Grosseteste seems to approach the modern conception of ether. It is certain that 'lux' means more than ordinary physical light,[3] for in *Hex.* f. 147^{v}b, where he asks whether 'lux' is a body or a quality, he concludes that it is both and definitely accepts the doctrine of John Damascene, who says of light 'significat accidentalem qualitatem de lucis substantia naturali generativa actione procedentem. Ipsa enim generativae actionis indeficiens motio qualitas est substantiae indeficientis sese generantis motus enim in genere qualitatis est, quemadmodum et quies',[1] and again, 'Lumen est qualitas ignis . . non habet propriam ypostasim', and also adopts the theory of Augustine that 'lux significat substantiam corporalem subtilissimam et incorporalitati proximam, naturaliter sui ipsius generativam'.[2] *Lux*, then, is something approaching spirit; in fact, in *De Luce*, p. 55: 2, where he is contrasting *lux* with *lumen*, he refers to it as 'corpus spirituale sive mavis dicere spiritus corporalis', and finally, when speaking of the transmission of light (55: 5) he explains that it is not to be looked upon as something passing, 'sed suus transitus est per sui multiplicationem et infinitam generationem luminis'; so too on 92: 9 'pertransitio ⟨lucis⟩ est subito et non est motus, sed mutatio'.

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[1] This does not mean that the intermediate causes are only instruments of the First Cause, for on p. 124: 6 he says, 'Causae vero mediae inter efficiens primum et ultimum effectum habent intentiones sibi proprias, sicut intelligentiae et corpora caelestia et corpora corruptibilia agentia; et ex hoc non dicuntur instrumenta solum, sed agentia.'

[2] This doctrine, which is apparently an attempt to unite the world of spirit and matter, seems to have been inspired by the account in *Genesis* of a light created three days before the sun and stars and by St. Basil's explanation of the night and day of that period as being due to an emission and contraction of this original light—the movement of the sun around the earth not being possible before the fourth day—cf. Grosseteste's *Hex.* f. 146^{r} and ^{v}. Possibly Plato's world-soul as the instrument of cosmic motion and development and as that which brings the eternal ideas into finite existence may have also influenced him. There is, too, the probability that Grosseteste knew the *Liber de Causis*, but after reading the *Hexaëmeron* passages, I am inclined to think that his chief inspiration was St. Basil rather than the Neo-Platonists suggested by C. Baeumker in *Witelo, ein Philosoph u. Naturforscher des xiii Jahrhunderts*, Münster 1908, *Beiträge* series, Bd. 3, p. 414.

The doctrine exercised a considerable influence on the Franciscans; it is found in Bartholomaeus Anglicus, Adam Marsh, Thomas of York, Alexander of Hales, and in Bonaventura, who develops it most completely. The almost verbal resemblances between Grosseteste's theory and that of the unknown author of the *Liber de Intelligentiis*, as well as the general predominance of Augustinian doctrines in the latter, makes it not improbable that the *Liber de Intelligentiis* was written by someone trained in the Oxford school. Baeumker (*op. cit.*), in spite of the fact that four MSS. of this work are anonymous and that a fifth is ascribed to an Alanus and the sixth to an Alexander, has attributed it to Witelo on the somewhat precarious grounds of a similarity between it and the *Perspectiva* of Witelo.

[3] For the interpretation in Bonaventura, see E. Gilson, *La Philosophie de S. Bonaventure*, Paris 1924, p. 263 f. Pecham in *Perspect. Comm.* (lib. i, prop. 60) also regards physical light as a manifestation of some *quidditas* discernible only by reason.

It appears, then, that Grosseteste experienced the same difficulties as modern physicists. The functions he assigns to light, together with the preceding statements, show that he regards it as an energy; but his desire to speak of it as resembling body is strikingly like the present-day application of such terms as 'wave lengths' and 'rays' to the ether, which in itself is admitted to be imperceptible by the senses and is thought of only as the subject of activity or as that which is conserved throughout change. As a principle of unity in the universe, this light is comparable to the modern ether, which fills all space from the most distant stars to the interspaces of the atom. Again, Grosseteste's theory is not unlike the modern hypothesis of the convertibility of matter and energy. Lastly, we find something resembling the modern ethereal attributes of electricity, magnetism, and chemical activities in his view of *lux* as the source of all movement and life and as the basis of sound[3] (*Post. An.* ii, c. 4, f. 40^{v}b).

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[1] Cf. *De Fide Orth.* ii, 7, P.Gr. 94: 886.

[2] Cf. *De Gen. ad Litt.* xii. 16. 32, P.L. 34: 466.

[3] *Lux* is also regarded as the basis of colour in *Hex.* ff. 147^{v}b and 152^{r}b. This, however, seems to be rather a careless use of terms, for, generally speaking, he thinks of visible light as the primary phenomenon of *lux*, cf. *Post. An* ii,

COSMOLOGY

Proceeding now to the static consideration of the various grades of beings in the universe, we recall that, for Grosseteste, this spherical[1] cosmos comprises thirteen concentric spheres, of which the outer one is the sphere of the *Primum Mobile*, the four innermost ones the spheres of the elements, and the intermediate those of the seven planets and that of the fixed stars—11: 23. The spheres above those of the elements are composed of the fifth essence[2]—11: 18. Those of the seven planets and that of the fixed stars have not the same centre as the stars which they carry around, and are also essentially different from them in nature and activity—35: 21; 32: 10. Such being the case, it is clear that the stars cannot be of the fifth essence, for activity flows from the nature of a being; they are rather *corpora mixta* (33: 23), and consequently, not merely metaphysically composed of matter and form[3] but physically out of the elements.[4] 'Non dico compositum ex materia et forma solum: sic enim compositum non opponitur ei, quod est simplex, sed dico compositum ex elementis; pluribus enim modis dicitur compositum'—33:18.

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c. 5, f. 42ʳa. In addition to this last use, which includes the physical side of sensation, and light as the essence of beauty, giving unity, proportion, and lustre (cf. *Hex.* f. 148ʳa), he regards it as the link between body and soul (cf. p. 28) and also applies it figuratively to intellectual knowledge (*Post. An.* i, c. 17, f. 22ʳa and *De Veritate*, 137: 23), to the three Persons of the Trinity (*De Lib. Arb.* 179: 14), to the action of grace and free-will (*ibid.* 202: 18), and to the relation between the Pope, bishops, and clergy (*Epistolae*, pp. 360, 364, 389).

[1] As Baur in *Die Philosophie des Grosseteste* (p. 29) remarks, Grosseteste appeals to observation rather than to Aristotle's proofs of the sphericity of the world given in *De Caelo* ii, c. 4 and 14.

[2] Grosseteste does not definitely say whether this fifth essence is a form of *lux*.

[3] We are not told what kind of matter is in the heavens. From what follows it would seem that it is not the matter of generable and corruptible things, and, since in *Hex.* f. 144ᵛb it is said that celestial bodies have no potency 'nisi situs', we conclude that it must be the matter that is the subject of local change—cf. p. 69.

[4] This is contrary to Plato, Aristotle, and Augustine, Grosseteste's chief authorities. John Damascene merely observed that we are ignorant of the nature of the stars, though we know that they are composed and liable to corruption. Adelard of Bath had already declared that they were made of the purer parts of the four elements, but at the end of the twelfth century this doctrine was rejected by Daniel of Morley for the Arabic view of the fifth essence as the substance of the stars—cf. L. Thorndike, *Hist. of Magic and Experimental Science*, London 1923, vol. ii, p. 176.

But does not this destroy the Aristotelian doctrine of the incorruptibility of the stars—a doctrine which Grosseteste himself has accepted (56: 15)? He thinks not, for the fifth essence, which also is found in the stars, has been shown by alchemy to be 'impermutabilis secundum se, ⟨sed⟩ permutabilis per humiliationem sui ad inferiora'; hence he contends that the stars are made incorruptible 'per sublimationem' [1]—36: 4. The same difficulty concerning this incorruptibility arises when Grosseteste asserts that the potency of the heavens, like that of all creatures, is finite. That it must be so, he concludes from the contingency of celestial bodies, from their possibility of remaining motionless, from their movement being 'propter aliquid', as well as from the hypothesis that the universe as a whole is in one place [2]—97: 25. But if their potency is limited, surely they are corruptible? Grosseteste thinks not, for since they have no contrary—the cause of generation and corruption—they must be permanent in substance. He tries to escape the difficulty by suggesting that even though they have this potency of 'permanentia in substantia', their movement cannot be permanent because it has a contrary, namely, rest; and again, to avoid a further objection from the view that movement is in substance, he contends that the movement of the heavenly bodies comes from another being, and consequently is not eternal, except in the sense that it comes from a separate eternal mover (cf. p. 40)—98: 9. Hence Grosseteste, fortified by Plato, St. Basil, and John Damascene, asserts that the heavens of themselves are corruptible, but, by the will of God, they are free from any contrary, and, in this sense, incorruptible. 'Stabit caelum et finietur motus et tempus cum cessabit hominum generatio' [3]—

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[1] Baur in the introduction to his edition of Grosseteste, p. 68*, cites Wycliffe, *De Actibus Animae* (cf. 1, opp. xv. 1, p. 76) as holding, 'Nec obest compositio ex contrariis perpetuitati, quia secundum Lincolniensem in libello omnes planetae et stellae componuntur ex contrariis elementis et tamen sunt incorruptibiles.'

[2] Compare the modern view that the universe, in the sense of all that is, cannot change because all possibility is within the real.

[3] So too *Hex.* f. 144^{r}b. Duhem, *Le Système du Monde*, t. 3, p. 397, significantly remarks, 'Il (i.e. Bacon) a vu Robert Grosseteste suivre Ptolémée lorsqu'il voulait faire œuvre d'astronome, et s'attacher à la doctrine des sphères homocentriques lorsqu'il se proposait d'être métaphysicien.'—cf. *ibid.*, p. 287. Grosseteste's real motive, however, is his belief that all created things, even the most perfect celestial bodies, are created for the physical and spiritual needs of man.

106: 11. This cessation of motion he upholds against Aristotle, whose doctrine he thinks has been misrepresented by enthusiasts who desire to reconcile Aristotle with Catholicism by denying that he asserted the eternity of the heavens (cf. p. 43 below).

With regard to the action of the celestial bodies on the inferior ranks of beings, Grosseteste accepts the common medieval view that these bodies, as guided by the intelligences, are the indirect instruments of the First Mover, affecting all inferior corporeal beings, including the body of man—5: 25.[1] To what part or movement of the heavens this principle of activity is to be assigned Grosseteste does not suggest, being more concerned to show, as we have seen, that the action can take place because every object has incorporated in it particles of a spiritual character assimilated to the nature of celestial bodies—*Post. An.* ii, c. 4, f. 38^vb; *De Luce*, p. 57: 9.

The lowest type of body in the cosmos is the elements and mixtures (the modern 'compound'). After matter has been stamped, so to speak, with the form of corporeity, it receives a further determination as one or other of the elements, and again, by the interaction of the elemental forms, may assume the form of a mixture. Such forms Grosseteste calls material forms,[2] because their material cause is 'situalis' and because they are impressed throughout the whole, each part of which is of the same species as the whole—124: 30.

Above the elements and mixtures come the immaterial forms of plants and animals, which are distinguished by being 'non-situalis' and by not being of the same species in the whole and in the parts. Their operation, however, is 'situalis' because it is coextensive with the whole body, so that every part of the plant vegetates and every part of the animal feels. An additional feature, which like the last serves to differentiate these forms not only from the elemental forms but also from the rational forms, which come next in the scale of beings, is that these vegetative and sensitive forms are impeded in some manner by the 'forma situalis' of elements—124: 34.

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[1] What exactly is meant by the effect of celestial bodies on man is difficult to determine, especially since it is not an indirect effect through climatic conditions. The theory of kinship with the stars still persists to-day, being well instanced in Prof. Alexander's *Space, Time, and Deity*, particularly in the passage quoted by him (ii, 335) from Meredith's *Meditation under Stars*:

> The fire is in them whereof we are born;
> The music of their motion may be ours.
> Spirit shall deem them beckoning Earth, and voiced
> Sisterly to her, in her beams rejoiced.

[2] This phrase is constantly employed by the Scholastics when they mean that a form is inseparable from matter. They also speak of such a form as 'immersed in matter', by which they intend that it is less able to dominate over its matter than a superior form. Form, as applied by them to the inanimate realm, was restricted to a principle of unity and cohesion, but Grosseteste might have made it include a principle of activity if he had consistently utilized his theory of corporeal radiation.

Of these animate grades the vegetative is the inferior, being something between 'corpora penitus carentia vita et corpora sensitiva' (cf. *Comm. on De Myst. Theol.* f. 270^r), differentiated from the first by the possession of life and from the second by the lack of movement. But with them Grosseteste is not particularly concerned, for, as Augustine had pointed out, even the superior animal kingdom is incapable of knowledge (*scientia*), and therefore of merit or demerit. Consequently I pass on to his science of rational creatures.

PSYCHOLOGY

Man occupies the next place in the hierarchy of the universe; for, unlike the vegetative and sensitive forms, his form comes from a *forma non situalis*, i.e. God, and its operations are not coextensive with the body since not every part of the body understands or wills. Further, its diversity of operations and perfections makes it to be the highest of the natural forms—125: 6.

Having given a place to man in the scale of creatures, Grosseteste defines him thus, 'Verus homo est animal, quod componitur ex corpore et anima rationali'—135: 28. By the first factor man resembles inferior creatures; by the second the superior angelic beings. In considering each of these components separately, body will be taken first, since, for Grosseteste, it is subject to the various changes of generation and destruction, of increase and decrease, and of change in place and quality, while, as John Damascene says, the more perfect soul undergoes only changes of intellect and will.

The human body, which like all extended beings receives its first perfection from the form of corporeity, has in its composition the nature and forms of the four elements, wherefore man is said to be a small world[1]—p. 59. These elements, which in nature derive their movement directly from the heavens, are in the human microcosm unified and vitalized by the soul which moves the nerves and muscles by means of light[2]—cf. 116: 17. In *Hex.* f. 147^{r}a, where Grosseteste uses the pseudo-Augustinian work *De Spiritu et Anima*, he writes, 'Lux igitur est per quam anima in sensibus agit et quae instrumentaliter in eisdem agit.' Hence just as light is the instrument by which the purest Spirit produces the corporeal world, so too it is the instrument by which the soul comes into contact with the body and the things of sense.

What exactly is meant by *lux* as an intermediary between soul and body? If *lux* is, as it has been suggested (p. 23), a substance differing from physical light, it is highly probable that it is Grosseteste's ingenious substitute for the immaterial *pneuma* of the Neo-Platonists and the animal spirits of the Medical School—a substitute that, like the original, seems designed to absolve this noble soul from the obligation of assuming vegetative and sensitive functions. Being an intermediary, it possesses neither the special attributes of thinking and willing peculiar to spiritual beings nor the grossness of body. A second and more significant problem arises concerning what is meant by the soul which is thus linked to body. Does it signify merely the vegetative and sensitive soul, as is suggested by a passage in *Post. An.* i, c. 14, f. 18^{r}b—'Pars suprema animae humanae quae vocatur intelligentia . . . non est actus alicuius corporis, nec egens in sua operatione propria instrumento corporeo?' This passage is extremely interesting, for if Grosseteste here promulgates the doctrine that the rational soul is not the act or form of the body, he becomes the first of the English school to suggest the theory of the plurality of forms.[3] His constant emphasis on the separability of the human soul also suggests a subordinate form for body, which is always regarded as the instrument rather than the correlative of soul. The observation on p. 125: 20 that 'anima rationalis non solum unitur corpori humano sicut motor, sed etiam sicut intelligens mediante virtute corporea. Intelligit enim non sine phantasmate, quod est actus virtutis sensitivae' means only that, as an instrument, the body indirectly influences the soul. 'Licet substantiae incorporeae possint agere in corpora, utpote nobiliora in minus nobilia, non tamen, ut videtur, e converso corpora possunt agere in substantias incorporeas, quia ignobilius non potest agere in id quod nobilius est'—118: 37; *Hex.* f. 165^{r}a; *Post. An.* i, c. 18, f. 25^{r}b. In *Hex.* f. 158^{r}a he compares the action of body to that of a mirror that acts by means of reflected rays—a comparison that follows from his exalted idea of the soul derived not only from Plato and Augustine, but from John Damascene, who regards man as a spirit by grace, but flesh by overweening pride.[1] The soul, then, seems to be for Grosseteste something distinct from the body and not to be thought of as its form, except inasmuch as all activity comes from, or is controlled by, the soul. Such an opinion saves the relation between soul and body from being one of mere contiguity.[2]

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[1] Cf. Plato, *Timaeus*, 43a. Bonaventura allows five elements, that by which sight apprehends luminous bodies, touch the solid and terrestrial body, taste liquids, hearing air impressions, and smell which combines air, heat, and humidity—cf. Gilson, *op. cit.*, p. 335.

[2] Cf. Bonaventura, II *Sent.*, d. 15, a 1, q. 3, p. 380 and d. 17, a 2, q. 2, p. 422.

[3] In any case, Grosseteste possesses the rudiments of this theory, even if he does not consistently expound it; in man he allows a form of corporeity, the forms of elements and of mixtures, and the form that is the principle of activity. The significance of this important problem will be indicated in the section on Pecham (cf. p. 186 f.).

If body is primarily the instrument of soul, how is soul present in it? On p. 114: 8 he offers as a solution: 'Sicut autem Deus simul totus est ubique in universo, ita anima simul tota est ubique in corpore animato'—which is to say, it is in body by its operations—cf. *Hex.* f. 167^{v}a. And again (114: 24), we are told that soul is 'per essentiam' everywhere in the body which it vivifies, and not only 'per virtutem' in certain points; if the latter were true, 'virtus' would become an accident of the soul rather than its whole substance, and the essence of the soul would have to be imagined as a point of light situated in the heart or brain and diffusing rays in all directions. But the soul cannot be located in a physical point, because it is incorporeal; rather is it 'in corpore sine situ praesens, sine loco ubique tota',[1] that is, as we have seen, it is present by its activity or *per essentiam*, because *virtus* is the whole substance of the soul.

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[1] *De Fide Orth.* in Migne, P. Gr. 94: 922.

[2] Grosseteste defines man as soul plus body, and never surrenders the dualism between them. Like Augustine, he seems dominated by the desire to maintain that soul is essentially distinct from body, which only when considered as the source of the raw material for knowledge can be said to possess any excellence. Pecham tries to minimize the dualism by allowing the soul a natural desire for its body, but it was left for Richard of Middleton to proclaim that body forms a part of the essence of man and that the soul includes the vegetative and sensitive powers.

So far we have been considering soul in its relation to body, but since this is only a secondary aspect of soul, it behoves us to pass on to thought and will as its characteristic activities.

With the physiological side of knowledge Grosseteste is little concerned, and it is unnecessary to add more to what has been said above. Although the sense faculty, which is controlled by the *vis apprehensiva*, has self-preservation for its chief end (94: 25), it becomes, by the assistance of the common sense, the imagination and the memory, the occasion, but never the cause, of knowledge. This latter, it could not be, for not only is the inferior unable to modify the superior,[2] but also sense cannot apprehend universals, the materials of knowledge; it perceives things only 'in loco signato, et tempore signato, quare non sentit nisi rem unam signatam'.[3] Moreover, the sense faculty is at a further disadvantage through receiving colour, size, figure, and body as one, so that intellect (*ratio*) has subsequently to differentiate these qualities—*Post. An.* i, c. 14, f. 18^{r}b; c. 18, f. 25^{r}b f.; and ii, c. 6, f. 43^{r}a.

Inasmuch, then, as the senses contribute to knowledge, they must be of value, but Grosseteste never completely tears himself away from the notion that they restrict knowledge. 'Pars suprema animae humanae quae vocatur intelligentia . . . si non esset mole corporis obnubilata et aggravata, ipsa per irradiationem acceptam a lumine superiori haberet completam scientiam (i.e. of singulars as well as of universals) absque sensus adminiculo, sicut habebit cum anima erit exuta ⟨exulta⟩ a corpore, et sicut habent forte aliqui absoluti ab amore et phantasmatibus rerum corporalium. Sed quia ipsa puritas oculi animae per corpus corruptum obnubilata et aggravata est, omnes vires ipsius animae rationalis in homine nato occupatae sunt per molem corporis ne possi⟨n⟩t agere et ita quodammo⟨do⟩ sopitae'—*ibid.* i, c. 14, f. 18^{r}b; cf. 146: 32, 149: 18, 1:4.

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[1] On p. 116: 6 he writes, 'Anima in corde situm habere dicitur, quia illinc inchoat motiones corporales vitales'.

[2] Cf. Augustine, *De Musica* vi, 5, P.L. 32: 1167 f. and *De Gen. ad Litt.* xii, 16 f. P.L. 34: 466 f.

[3] This means only that space and time are conditions of experience, not that sense perceives the matter of things, for this he repudiates. He seems to imply that there are degrees of immateriality and that the form received by the senses has more matter than that received by the intellect. This is undoubtedly the interpretation of such expressions as 'the material phantasm of opinion' and 'the sensate forms of imagination'—cf. *Post. An.* i, c. 17 f. 23^{r}b, and ii, c. 6, f. 43^{r}a.

From the materials of sense, however, whether or not they be distorted, the intellect elicits the universal[1]—*Post. An.* i, c. 14, f. 18^{r}b. This is possible because (*a*) the likeness generated by the known object and received into the sense faculty represents the universal nature existing in that object, and (*b*) the intellect possesses the power to assimilate itself to that likeness[2]—*Hex.* f. 166^{v}b. The independent reality of the universal is not discussed at great length by Grosseteste, but it is proclaimed in such statements as: 'Universale non est figmentum solum, sed est aliquid unum in multis'—*Post. An* i, c. 17, f. 22^{v}a; 'Puto quod unitas universalis in multis particularibus assimilatur unitati lucis in luce gignente et genita. Lux enim quae est in sole gignit ex sua substantia lucem in aere nec est aliquid novum creatum ut sit lux in aere, sed lux solis est multiplicata et propagata'—*ibid.*; 'Universalia rerum naturalium sunt minus entia quam singularia intelligentiarum'—*ibid.*; and lastly, 'Si intelligamus universalia per modum Aristotelis formas repertas in quidditatibus particularium a quibus sunt res particulares id quod sunt, tunc universale esse ubique nihil aliud est quam universale esse in quolibet suorum particularium vel singularium'[3]—*ibid.*, c. 18, f. 25^{r}b.

Similarly as regards the actual elicitation of the universal,

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[1] The universal brings us to the word 'form' as indicating an exemplar, for whereas hitherto we have noted Grosseteste's metaphysical view of form as the principle 'quo res est', or, as he terms it, 'the actual existence of form in nature when united to matter', we now have to consider the potential existence of form, and this involves the universal as a principle of knowledge and also as an exemplar existing in the mind of the Creator.

[2] Primarily the process is possible because the material of sense is supplied by bodies acting on us, and this is due to the participation of bodies in light whose nature it is to multiply itself.

[3] Grosseteste adds that, as the principle of knowledge, the universal is everywhere, because intellect is in a spiritual way everywhere and applies the same term to different beings when they possess a common character; so too, if we consider universals as exemplars in the Divine Mind, for the First Cause is also everywhere by its activity—*Post. An.* i, c. 18, f. 25^{r}b. Form, then, in the sense of universal, is *in re*, *post rem*, and *ante rem* according to our point of view.

Grosseteste says little. His chief remarks are (1) the complete universal must be free from the phantasms of material things—cf. *ibid.*, c. 19, f. 27^{r}b, (2) such a universal must involve the experience of many singulars—cf. *ibid.* ii, c. 6, f. 43^{r}a, and (3) the eliciting process actualizes our potentiality for comprehending first principles. This third remark receives a fuller treatment, and hence, in *ibid.* f. 43^{r}a and b we read, 'Manifestum est igitur quod neque actu habemus principia ab initio, neque penitus ignoravimus ea, sed sunt in nobis ab initio in potentia et extrahuntur in nobis de potentia ad actum, habitus itaque eorum in nobis primo est possibilis et materialis ⟨sive⟩ passivus et non est activus, quia si esset activus, tunc esset honorabilior et melior, et certior quam habitus actualis principiorum, eo quod activum est nobilius eo in quod agit, et nobilius effecto . . . sed fiunt (i. e. principia) in nobis a sensu per reductionem de potentia ad actum, et sensus est fundamentum eorum quo existente poterit esse cognitio universalium.' [1]

Once elicited, the universals become the material for demonstration, the method of scientific knowledge, there being no such knowledge of changing singulars or things caused by chance—*ibid.*, c. 14, f. 18^{r}b; c. 17, f. 24^r; c. 18, f. 25^{r}a. But how can that which is derived from corruptible and changing singulars be the necessary, perpetual, and incorruptible material of demonstration? In attempting to answer this question Grosseteste turns from Aristotle to Augustine. It cannot become such material, he thinks, unless it is conformed to the unchangeable prototypes or ideas existing in the Divine Mind, for these are the principles of knowledge as well as of being—*ibid.*, c. 7, f. 8^{r}b; *De Veritate* 135: 5, 137: 1. Just as a tree is most truly a tree when it has the fulness of being existing in the eternal exemplar,[2] so, too, our knowledge of a tree can only be exhaustive when our concept corresponds to the eternal nature of tree in God. Hence the universal *ante rem* seems to be for Grosseteste the most real thing and God becomes the light in which all is seen—137: 2.

But how are we, who cannot know even the sense-world adequately, to learn what the Divine exemplars are, and whether our universals correspond to them? Certainly, of itself, the human intellect can never attain this goal of absolute knowledge; for, in addition to its need of a corporeal instrument for action, it is encumbered by the corruption of its powers through sin; so that although the soul, like the angels, was meant to see all knowable things in the first light by a radiation from that light, in its present condition it can know God only inferentially. Nevertheless, Grosseteste holds that the goal *is* attainable in this life, for if, when in a state of grace, the mind transcends the contents of consciousness, it becomes subject to a kind of radiation from the First Cause that illuminates intelligible things and imparts to the mind a clearer understanding and an infallibility [1] proportionate to its penetration. 'Res autem dicuntur certae a comparatione quam habent ad cognitionem sive ad visum mentalem. Dico ergo quod est lux spiritualis quae superfunditur rebus intelligibilibus, et oculus mentis quod ⟨qui?⟩ se habet ad oculum interiorem ⟨et⟩ ad res intelligibiles, sicut se habet sol corporalis ad oculum corporalem et ad res corporales visibiles. Res igitur intelligibiles magis receptibiles huius lucis spiritualis magis visibiles sunt oculo interiori, et magis sunt lucis receptibiles quae naturae huius lucis magis assimilantur. Res itaque huius lucis magis receptibiles ab acie mentis quae similiter est irradiatio spiritualis perfectius penetrantur et haec penetratio certitudo maior'—*Post. An.* i, c. 17, f. 22^{r}a, cf. *Comm. De Myst. Theol.* f. 267^{v}.

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[1] Augustine, too, thinks we begin life with a confused and unconscious fund of knowledge—cf. *De Lib. Arb.* ii, c. 10, n. 29, P.L. 32: 1256.

[2] Temporal existence seems to add nothing to these Divine ideas and appears to be valuable only for the development of man.

Since it is the interior eye which is illuminated in order to see intelligible things,[2] the essential primary transcendence does not imply quietism; indeed, Grosseteste, like Augustine, was too much of an individualist to anticipate anything less than the completest self-fulfilment from this apparent suppression of personality. Again, were the mind not active during this illumination, as M. Gilson (*op. cit.*, p. 375) says, the result would be a science of the ideas of things rather than of the things themselves. Grosseteste's meaning seems to be that man can have a type of knowledge resembling that derived by the angels from their infused species, though inasmuch as man's knowledge refers to universals elicited from the external world, it differs from the non-discursive angelic knowledge. Such a method of knowing, which is called *sapientia*, gives us the utmost certitude,[1] since 'omnis creata veritas non nisi in lumine veritatis summae conspicitur' [2]—137: 2; though, inasmuch as we contemplate truth in ourselves and the first principles are potentially in our souls, truth is said to dwell in the inner man.[3]

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[1] Gilson (*op. cit.*, p. 370) touches the key-note of this theory when he remarks à propos of a similar view in Bonaventura, 'De saint Augustin à Pascal, le thème chrétien de la misère de l'homme sans Dieu passe par la philosophie bonaventurienne.' On p. 377 he also quotes Bonaventura's view that Aristotle, by declaring inaccessible the First Cause on which all beings are founded, rendered certitude impossible. Cf. p. 100.

[2] From this, the Divine light seems to be the means of knowing, rather than what is known. If we knew the eternal natures in God, we should know Him.

This theory of Divine illumination is Grosseteste's nearest approach to an active intellect, since in the ordinary process of knowing through phantasms and universals he supposes that the whole soul is active and not merely a faculty known as the active intellect.[4] Like Aristotle's active intellect, this illumination comes from without, both in the sense of not being a product of sensation and in the sense of being the co-operation of God with the individual intellect—an immediate co-operation which, as we have said, does not destroy the natural activity of the intellect.[5] In fact, because we can only attain complete knowledge by passing beyond sense-perception and intellectual apprehension, Grosseteste's theory of knowledge becomes, like that of Augustine, a metaphysics of inner experience (cf. *Post. An.* i, c. 17, f. 24^{r}a) and the words of Dr. Seebeck applied to Augustine would be equally appropriate to Grosseteste: 'Nicht das Verhältnis des Inneren zum Ausseren, sondern das des Inneren zum Innersten, zum Fühlen und Schauen Gottes im Herzen, sind die eigentlichen objekte und treibenden Kräfte seiner Spekulation.' [1]

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[1] Below this is the certitude of mathematical science, which is far superior to the insignificant certainty derived from mutable natural things—*Post. An.* i, c. 11, f. 13ra. Knowledge of the abstract is more certain than knowledge of the concrete thing, because it is knowledge of what is prior—*ibid.*, c. 17, f. 24rb.

[2] In *De Verit.*, pp. 130–4, he gives a list of quotations for this theory from Augustine and Anselm, as well as such scriptural verses as—'Ego sum via, veritas, et vita' and 'Ipse docebit vos omnem veritatem'.

[3] Grosseteste's interesting discussion of logical and ontological truth would take us beyond our sphere. The latter consists in 'rectitudo et conformitas Verbo, quo aeternaliter dicuntur' (135: 5); the former applies to the thing as thought by us, i. e. 'in adaequatio sermonis interioris et rei' (130: 18). In the first sense, Truth is one; in the second, it is many and incomplete.

[4] Grosseteste's view was held by his friend, William of Auvergne, Bishop of Paris. William rejected an active intellect chiefly because (*a*) it endangered the simplicity of the soul, (*b*) the senses can act without a *sensus agens*, (*c*) it would imply that the intellect always understood, and (*d*) if it itself possessed no knowledge, it could not be a part of the soul; for knowledge is the soul's chief characteristic—cf. M. Baumgartner, *Die Erkenntnislehre des Wilhelm von Auvergne*, Münster 1893, p. 47 f.

[5] Grosseteste probably conceived the co-operation in much the same way as he did that of grace and freewill. Grace is like light streaming through coloured glass, the effect of which is a coloured ray in which both the colour and the light are preserved—cf. *De Lib. Arb.*, p. 202: 18.

Of the possibility of knowing the nature of the soul Grosseteste does not treat. In fact, so far as spiritual beings are concerned, he confines himself to our knowledge of God. This knowledge, as we have said, cannot be other than inferential, and even that has only a limited validity; for, since God is pure simplicity without any diversity, His nature, as it is in itself, cannot be comprehended by us. Moreover, being uncaused, God cannot be known, for all definition or expression of knowledge is by explanation of the essence of a thing, which involves its causes—*Post. An.* ii, c. 2, f. 33^{r}a. Again, definition is applicable only to that which is in a genus. Such knowledge of God as we derive through revelation and through creatures may lead us to speak of Him as not being anything that this phenomenal world is, e.g. as being without beginning or end, as immaterial, unchangeable, uncircumscribed, and as beyond our comprehension. But this knowledge is only negative comprehension by denial of imperfection. If we ascribe positive attributes to Him, we speak only of the qualities of His nature, this being possible because of His infinite relations (180: 1 and 191: 31), and we wrongly imply that God has these qualities instead of being them. Strictly speaking, because of the plentitude of His being, God transcends all affirmation; for He is above substance, above *ens*, above eternity, above wisdom, and so on—cf. *Comm. De Myst. Theol.* f. 270^r. He is, as Augustine says (*De Trin.* v, c. 1, § 2[2]), 'sine situ praesens, sine loco ubique totus, sicut sine qualitate bonus, sine quantitate magnus, sine indigentia creator, sine habitu omnia continens, sine tempore sempiternus, sine ulla sui mutatione mutabilia faciens nihilque patiens'—112: 6.

Of will, the second faculty of the rational soul, there is little that falls within our enquiry, as most of the long treatise *De Libero Arbitrio* is occupied with such ethical and theological problems as freedom, fate, grace, predestination, and the foreknowledge of God. Of these I have already touched on the question of freedom [1] in saying that the body is subject to the influence of the heavenly spheres; for, although this is allowed, Grosseteste regards the soul as free from such influence, because it is not affected by the body—cf. *Hex.* ff. 157^{v}–8^{v}. As John Damascene maintained, were we subject to the universe, our reason would be given to us in vain. Man is the lord of the universe rather than its subject. 'Omnia facta sunt propter hominem. Motus ergo caeli est, ut per ipsum sit continua generatio et corruptio, in quantum hae mutationes et aliae sunt homini adiumentum. Ergo cum non egebit homo his mutationibus, non erit causa quare caelum moveatur. Stabit ergo caelum et finietur motus et tempus, cum cessabit hominum generatio'—106: 7. With the problem of the precedence or dependence of the will on the intellect Grosseteste was not consciously concerned; however, his Franciscan successors could use such views as that of the purity of will being necessary for the right development of the potential existence of form in the mind and that of the power of the will to incline to either of two known opposites in support of their doctrine of the primacy of the will.

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[1] 'Die Anfänge der neueren Psychologie' in *Zeitschr. für Phil. und phil. Kritik.*, 1888, p. 189.

[2] *Ibid.*, P.L. 42: 912.

How will and reason are to be distinguished in the soul, or how they can exist together with the sensitive and vegetative faculties, we are not told. Nevertheless, from scattered passages, such as that in *Hex.* f. 167^{r}b, where he adopts the view of Augustine that memory, will, and intellect constitute the image of the Trinity in the soul, it may be concluded that he would reject any permanent substratum that undergoes change, and would prefer to think of these powers as identical with the substance of the soul, so that wherever the power of the soul is, there is its whole substance (cf. p. 29). Again, by regarding the faculties as modes of action rather than parts, Grosseteste preserves the simplicity of the soul, saying, 'Necesse est enim idem esse in essentia et in radice apprehensivum et appetitivum' —228: 5, cf. 238: 1. If the faculties are not accidents, but are identical with the soul, how are they to be distinguished from one another? He merely replies that the rational faculty is one and the same in respect to opposites, while the irrational powers are diverse in respect to different opposite acts—182: 6; and again, 'sensu comprehenditur desideratum et voluptuosum, intellectu autem intellectum'—94: 19.

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[1] On p. 222: 1 he says, 'Liberum arbitrium est potestas servandi rectitudinem voluntatis propter ipsam rectitudinem,' and on p. 221: 1, 'Libertas autem arbitrii non est libera generaliter ad consequendum quod vult, sed ad volendum quod debet velle generaliter.' A detailed treatment of Grosseteste's theory of the will is to be found in Baur's *Die Phil. des Grosseteste*, pp. 208–88.

The faculties of the soul signify that it is composed of potency and act, for not only does its *quo est* differ from its *quod est*, but even this latter, as essence, is fundamentally potentiality. So that if Grosseteste never definitely says that the soul has matter, we may with safety attribute this view to him because he regards matter and potency as interchangeable terms; God alone is pure form in the sense of pure act. Besides, as we have seen (p. 24), he admits that a composition of matter and form is not inconsistent with the nature of simple beings. Such too had been the teaching of tradition as represented by Grosseteste's chief sources, Augustine and Boethius.[1] Only when matter came to be arbitrarily restricted to *materia signata* was the hylomorphic composition of souls and angels denied.

Finally, as to the coming to be and passing away of the soul, Grosseteste contributes little that is valuable for philosophy. We have seen that he asserts that the human soul is distinguished from all inferior souls in being directly created by the First Form, but whether this act of creation applies to all the powers of the soul or whether the vegetative and sensitive powers are educed like the souls of plants and animals through the light of heavenly bodies, as Bonaventura supposed, or whether a period of time elapses before the coming of the rational soul into the embryo, as St. Thomas held, we are not told. However, it seems probable that Grosseteste would regard only the rational soul as created,[2] since in *Hex.* f. 167ʳ he tells us that being made in the image of God refers to the rational powers of the soul. Yet it is only probable, for he never actually defines the soul, though he constantly seems to employ Augustine's conception of it as 'substantia quaedam rationis particeps, regendo corpori accommodata'.[1]

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[1] Cf. Thomas of York, pp. 92, 103. According to H. Ostler in *Die Psychologie des Hugo von St. Viktor*, Münster 1906 (*Beiträge* series, Bd. 6), p. 35, the first thinkers to reject spiritual matter were Cassiodorus, Bede, and Rabanus. Hugh of St. Victor also denies the existence of matter in spiritual beings, saying, 'Non enim in materia praeiacente creata est spiritualis natura, quemadmodum corpoream diximus conditam fuisse'. Cf. *De Sacr.*, P.L. 176: 249—Cf. *ibid.*, col. 192.

[2] On the other hand, on *Hex.* f. 163ᵛa he says that God creates from nothing the souls of brutes and infuses them into an organic body adapted for them,

On the 'proofs' of immortality, the functionings of the separated form and its individuation—all of which would have been extremely interesting because of his view of the soul as independent of the body and as *per se* a principle of movement—Grosseteste does not express his judgement.

ANGELOLOGY

Above the human soul, as the highest natural form, come the forms of the intelligences or the angels, the last and most perfect of creatures. These beings were created before all others, or rather, *cum aeternitate* in distinction from the *post aeternitatem* of souls—147: 29. Being ranked next to God, they are naturally incorporeal in the sense that their specific activities of willing and understanding are accomplished *sine mediante virtute corporis*, and also in the sense of being free from quantity and place—125: 16. Thus, being neither existent in a material subject, as the soul is,[2] nor the result of a material cause, they can be said truly to be *per se entes vel per se stantes*—*Post. An.* i, c. 4, f. 4ᵛa. Yet, while the angel resembles God by his incorporeality, he differs inasmuch as he is not pure actuality; for being created, he possesses a composition of act and the potency in virtue of which he has received existence and in virtue of which he operates and changes. Having potency, the angel would be regarded, no doubt, by Grosseteste as possessing matter, but it must be remembered that he does not treat of the hylomorphic composition of spiritual beings. Similarly concerning any distinction of genus and individual characteristics, which Peter the Lombard thought necessary because no one angel could realize completely the perfections of his species,

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since, as sensitive powers, they could not be educed from extended corporeal matter. Pecham in his *Quaestiones*, ed. H. Spettmann, Münster 1918 (*Beiträge* series, Bd. 19, p. 191), relates: '⟨Alii⟩ dicunt quod Deus indidit materiae rationes seminales, non tantum respectu formarum corporalium, sed ⟨etiam⟩ respectu spiritualium, modo ⟨tamen⟩ quodam spirituali.' Cf. p. 155, n. 4.

[1] Cf. *De Quantitate Animae*, c. 13, P.L. 32: 1048.

[2] Cf. p. 400 f.

and the consequent problem of individuation, Grosseteste offers no opinion.

The specific functions of the angel are knowing and willing, and since the angel is that *virtus separata* which moves each sphere (cf. below), Grosseteste regards these two functions as identical not only according to substance, but according to *esse*—cf. 95: 10. f. Hence he prefers to call the angels powers rather than substances—*Comm. De Myst. Theol.* f. 271r. In considering this power as knowing, Grosseteste follows Augustine closely. The angels are said to contemplate God directly and the causal reasons or ideas within Him; so that like God, they too know singulars, and that, without any influence from the corporeal world. 'Intelligentiae recipientes irradiationem a lumine primo, in ipso lumine primo vident omnes res scibiles universales et singulares, et etiam in reflexione ipsius intelligentiae supra se cognoscit ipsas res quae sunt post ipsam, per hoc quod ipsa est causa eorum. Est igitur in his quae carent sensu scientia complexiva'—*Post. An.* i, c. 14, f. 18rb; *ibid.*, c. 7, f. 8rb. Here we have a further distinction between the angels and God, for their cognitive power is not complete in itself, but depends on the Divine Being; on the other hand, their cognition is to some degree like that of God, for in knowing themselves they know other things, at least those which they bring into being indirectly through the instrumentality of the celestial bodies. Speaking of these simple substances, Grosseteste remarks, 'forte enim eadem est potentia qua intelligit se et qua intelligitur a se intelligentia' (129: 4)—a remark which suggests that their self-consciousness has an active and a passive factor.

Concerning the angelic willing faculty, Grosseteste speaks only of its functions in the movement and government of the universe. We have already observed that the angel does not exist in a material substratum; nevertheless, he may be said to be united to a body in the sense of a mover with the moved—125: 16. He is that *virtus separata* by which the heavenly bodies are animated and from whence each sphere derives that proper movement [1] which it possesses in addition to the diurnal movement from East to West communicated by the First Cause [1] to all spheres including, perhaps, that of the element fire—57: 13, 94: 28, and p. 100. If it be asked how the angel controls its sphere, Grosseteste replies that it is as difficult to answer as the question how the soul moves the body. He only says it is 'per modum desiderati et intellecti' made possible by a delegation of power from the First Cause. Inasmuch as the causal powers of terrestrial species lie in these celestial bodies, the angels are said to bring corporal species into existence. 'Mediante enim ministerio intelligentiarum virtute causae primae processerunt in esse species corporales. . . . Iterum in virtutibus et luminibus corporum coelestium sunt virtutes causales speciorum terrestrium quarum individua sunt corruptibilia'—*Post. An.* i, c. 7, f. 8^{r}b. In this sense it can be said that some material forms originally possessed potential existence in the angels, just as others possess potential existence in the mind of the artist—cf. 95: 33.

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[1] This proper movement in the case of the firmament is Ibn Thâbit's trepidating movement (cf. *De Sphaera*, 25: 32; *Hex.* f. 149ra) and in the case of the planets Ptolemy's epicycles and eccentrics, which Grosseteste seems to accept because of the variable distances of the planets from the earth (cf. *De Sphaera*,

The question of how the angels move the spheres and the bodies which they assume brings up the problem of their relation to place, and in the *De Intelligentiis* Grosseteste attempts to answer this for Adam Rufus [2] by saying that only God can be in different places at the same time because His activity is everywhere. 'Non est igitur angelus ubique totus simul, quia hoc est solius Dei proprium, qui simul omnia vivificat, movet et gubernat, ut sit ubique in seipso totus, nullo loco

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25: 12 and *De Compotu*, ed. R. Steele in *Opera hactenus inedita Rogeri Baconi*, Fasc. VI, Oxford 1926, p. 217). By making the angel responsible for the particular movements of the spheres, Grosseteste escapes the confusion of Aristotle, who has a Prime Mover moving the outermost sphere and then each successive sphere moving the one next inside it, and also intelligences moving the seven planets—cf. Ross's edition of Aristotle's *Metaphysics*, Oxford 1924, p. cxxxv.

[1] Grosseteste does not actually say that the First Cause is God, but this would appear obvious to one who was versed in Dionysius and John Damascene. Nor does he identify the mover of a sphere with an angel, but the fact that he calls that mover 'virtus separata', and identifies the 'vis intellectiva' and 'vis desiderativa' with the essence of that 'virtus', would indicate his real opinion. Besides, in the scale of forms adopted in the *De Statu Causarum* he makes no allowance for any other beings. Bacon in *Op. Maj.*, ed. Bridges, iii, p. 47, definitely asserts 'intelligentia sive angelus', as does St. Thomas in *S. Theol.* i, q. 65, a. 4. Albert the Great tells us that the philosophers identified the angels and movers of the spheres, but he himself rejects this view in *Sent.* ii, d. 3, a. 3.

[2] Cf. p. 1.

circumscriptus'—117: 29. Hence, while the angels are not circumscribed by place, they are nevertheless determined to place by their operations and mental presence. They cannot function at the same time in different places, though, as John Damascene indicates, the quickness of the angelic nature might lead us to suppose that they can. Thus, then, the angel, like the soul, is 'sine situ praesens, et sine loco ubique totus in corpore ad ministerium aliquod assumpto'—115: 26, which is to say, they are in the bodies which they assume because they preside over the operations of these bodies—117: 32.

NATURAL THEOLOGY

God is the ultimate Being in the scale of existents because He is in no way united to a body—not even as a mover like the angel, for He is a 'forma abstracta simplex et separata' (125: 24). Secondly, as Augustine and Boethius declared, He has existence *per se*, while all other beings have existence through an efficient cause, and possess therefore a principle of receptivity. Lastly, possessing the plenitude of being, God must be pure form, and, indeed, the 'prima forma et forma omnium'—a doctrine to be accepted on the authority of the great Augustine[1]—107: 1 f. Moreover, reason shows that God is a form because 'forma est qua res est id quod est, . . . Deus autem a seipso est id quod est. Seipso enim Deus est, quia deitate deus est et deitas deus est. Quapropter cum id quo res est id quod est, forma sit, Deus forma est'—108: 13. Further, if God is a form, He must be the first form, since before Him there is nothing—107: 3. Likewise, because form is synonymous with completion and perfection, God must be a form, for He is 'perfectio perfectissima, completio completissima, forma formosissima et species speciosissima'—108: 27.

Being a pure form, God will be a perfectly simple being in Whom there are found none of the ordinary types of composition, such as essence and existence, act and potency, form and matter, or specific and individual characteristics. Indeed, the chief characteristic that distinguishes Him from created beings is an identity of essence and existence. As the only self-existent being, having no efficient cause, He exists on His own account and not by participation, and so existence is said to be of His very essence—229: 36; *Post. An.* i, c. 4, f. 4ᵛa. Again, He is distinguished by the absence of matter or potency, for having actuality without restriction, He possesses all possible perfection and is immutable and immaterial—cf. *Hex.* f. 142ʳb. It is superfluous to add that a composition of species and differentiae could not apply to God.

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[1] Cf. *De Lib. Arb.* ii, c. 16–17, P.L. 32: 1264 f.; *Conf.* xiii, 2, P.L. 32: 845 and xi, 30, *ibid.*, 825.

Discussing the relation of God to the world, Grosseteste uses the phrase 'forma omnium'[1] (106: 16), and elsewhere (125: 23) refers to God as the first Form 'quae simul est exemplar et quo res est', the 'quo res est' being applicable not only to the production of the world but also to its conservation and government. God, then, is not the form of creatures in the sense that He is united to their matter as one of the essential principles forming their substance, but in the sense that He possesses the exemplary forms of all things in much the same way as the artist possesses the likeness of the statue to be made, and that He causes the subsistence of beings (109: 7 f.). If we ask whether these exemplary forms, as they exist in the Divine Mind, are universal or singular, Grosseteste, following Augustine,[2] will reply briefly: 'In mente enim divina sunt omnes scientiae ab aeterno et non solum est in ipsa universalium cognitio certa, sed omnium singularium'—*Post. An.* i, c. 14, f. 18ʳb. God must know singulars, at least 'in puritate essentiae suae non concernendo eam cum accidentibus' (*Post. An.*, *ibid.*), else He could not reward and punish good and bad acts. Moreover, He creates, governs, and loves singulars. Lastly, if we know singulars, God also must have this knowledge [3]—*De Lib. Arb.*, p. 155 f.

These exemplary forms bring us naturally to the problem of God and creation, and apart from what has been said already on p. 19 f. about creation, the chief question raised by Grosseteste is that of the possibility of an eternal creation. For him this question was serious, since, as Bacon remarked, the theory of the eternity of the world was one of the chief reasons why the reading of Aristotle's *Physics* and *Metaphysics* was forbidden at Paris in 1210, 1215, and 1231.[1] Apparently, by his day, philosophers who concerned themselves with the problem fell into two schools—one that sought to find in Aristotle a temporal beginning of the world, and another that held that an eternal creation was not logically impossible. To the latter Grosseteste answers that eternity is a Divine prerogative, and that there is no common standard between the Creator as a complete principle and creation which has its first and complete cause in God—cf. 148: 14, and 217: 16. Moreover, the omnipotence of God would be destroyed if we supposed a matter existing beside Him from all eternity, for He would be reduced to acting like the human artisan through an already existing matter—*Hex.* f. 143^{v}b. Lastly, if time is infinite, the number of separated souls is infinite, or all souls are one, or the same soul returns to other bodies, or souls are mortal; but each of these alternatives is impossible—*Hex.* f. 142^{r}b.

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[1] The expression had been used by Dionysius and Eriugena, and is derived no doubt from Plato, *Timaeus*, 30 c. It was given a pantheistic turn by Almaric of Bène, who professed to find in Augustine the doctrines of the unity of substance and of God as the immediate formal principle of all things. It will be remembered that David of Dinant identified God with primary matter.

[2] *Epist.* 14, *ad Nebridium*, n. 4, P.L. 33: 80.

[3] These arguments are also supported by philosophical authorities—cf. *De Lib. Arb.*, p. 153 f.

To those who find in Aristotle the doctrine of the temporal beginning of the world Grosseteste objects that their interpretation is contrary to all other expositions. 'Omnes eiusdem loci Aristotelis ⟨expositores⟩ tam Graeci quam Arabes dictum locum de perpetuitate motus et temporis et mundi in eorum duratione ex parte utraque infinitum concorditer exponunt'[2]—*Hex.* f. 141^{v}a. He then gives a number of quotations from the *De Consolatione* of Boethius, the *De Civitate Dei* of Augustine, and the *Hexaemeron* of Ambrose to show that Aristotle did teach the eternity of the world. Then comes his own suggestive comment: 'Ex hiis itaque et multis aliis, quae afferri possent nisi prohiberet prolixitas, patet evidenter quod plurimi philosophorum simul cum Aristotele asseverant mundum carere

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[1] The possibility of an eternal creation had provided a lively controversy among the Arabians, the Mohammedan Peripatetics, Alkindi, Alfarabi, and Avicenna defending eternal creation against the Mutakallimun or Dialectici and the orthodox theologians.

[2] The Jew Maimonides, whose work Grosseteste appears to have known, claimed that Aristotle believed only that the arguments for an eternal world were more plausible than those for a temporal beginning—cf. *Dux seu director dubitantium aut perplexorum*, ed. A. Justiniani, Paris 1520, f. 48^{r}.

temporis principio, quos unius verbi ictu percutit et elidit Moyses, dicens "in principio". Haec addiximus contra quosdam modernos qui nituntur contra ipsum Aristotelem et suos expositores et sacros simul expositores de Aristotele heretico facere catholicum, mira cecitate et praesumptione putantes se limpidius intelligere et verius interpretare Aristotelem ex Graeca latina corrupta quam philosophos quam ⟨tam⟩ gentiles quam catholicos qui eius litteram incorruptam, originalem, graecam, plenissime noverunt. Non igitur se decipiant et frustra desudent ut Aristotelem faciant catholicum, ne inutiliter tempus suum et vires ingenii sui consumant, et Aristotelem catholicum constituendo se ipsos hereticos faciant' [1]—*Hex.* f. 142^{r}a.

Having contended that Aristotle *does* teach the eternity of the world, Grosseteste proves in the *De Finitate Motus et temporis* (p. 101 f.) that an eternal movement and time are impossible. The four arguments that he takes from Aristotle for such an eternity are: (*a*) Unless there is an eternal movement, the movement that came into existence after it had not been would imply a previous potential existence, the actualization of which in its turn implies a mover already existing. Therefore, before the first movement, which is held to have come into existence, there would be a movement already existing, and the first movement would not be the first movement; [2] (*b*) If movement is held to have a beginning, then a non-being must have preceded its being, else its beginning would have been from eternity, which is impossible. Therefore, if movement has a beginning, its being is posterior to its non-being. But priority and posteriority exist only in time. Therefore, the prior non-being of movement must involve time. Time, however, implies movement. Therefore, before movement, there was movement, which is an impossibility; (*c*) Aristotle says that the present is inseparable from the past and from the future. Consequently, there was no present before which time did not exist and there can be no present after which time will cease. Accordingly, time was without a beginning and will be without an end. And, since there is no time without movement, movement likewise must be eternal;[1] (*d*) There will be no rest after movement in infinite time, for if we suppose a last movement after which there will be no other, after that movement there will be a condition in either the mover or that which is moved which will mean either an actual non-mover or an actual non-moved being. Now this condition either is movement or is acquired by movement, which means that after the last movement, there will be a movement—an impossibility;[2] and (*e*) Aristotle and others think that only an eternal world is compatible with an immutable and non-temporal God.

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[1] E. Longpré, 'Thomas d'York et Matthieu d'Aquasparta' in *Archives d'Histoire Doctrinale et Littéraire du Moyen Age*, t. i, 1926, p. 270, n. 1, quotes an anonymous MS. 172, f. 198^{v} from the Bib. Comm. of Assisi that professedly cites Grosseteste's view of eternal creation as given in the *Hexaëmeron*. The verbatim quotation confirms the genuineness of the MS. of the *Hexaëmeron* in the British Museum.

[2] Cf. *Opera Aristotelis*, apud Juntas, Venetiis 1550, *Phys.* viii, s. 1, c. 1, f. 153^{v}b f

To the first argument Grosseteste replies that the difficulty involved in an actual existence after a potential one is imaginary, because 'after' supposes that time precedes the first principle of movement, and that there was a movement before the first movement, and a time before the first time. The second argument, he says, does not distinguish between a priority of time and a priority that signifies the relation of eternity to time. An eternity and not an endless time measures the non-being of the world the priority of which is not temporal. Regarding the third argument, Grosseteste simply denies that this is the nature of the present, and holds that there was a first instant and probably will be a last one, just as there are points at the ends of a line. Aristotle's argument is not a proof, he thinks, but only an imagination of an endless time. Similarly, the fourth argument is of no value because it conceives a time after all time.

Each of these arguments shows that Aristotle is incapable of thinking apart from time images; he imagines that to be 'sine initio' is equivalent to having 'esse extensum per moram infinitam', but, in reality, 'mundus tempus et motus' whose *esse* is inseparable from time are neither 'sine initio' nor 'fuerunt postquam non fuerunt' for with them time came into existence. In *Hex*. f. 142^{r}b Grosseteste declares that in eternity there is no extension 'secundum prius et posterius' and that time and eternity are not of the same genus. A later remark that 'all mutation implies a mutation in another' does not apply to a mutation that is from absolute non-being shows how Grosseteste would reply to the fifth of Aristotle's arguments—an argument that he takes as proving Aristotle's inability to grasp the simple eternity of a First Mover who can concern Himself with a changing, temporal world.

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[1] Cf. *op. cit.* iv, s. 3, c. 3, f. 82^{r}a and c. 7, f. 90^{r}b.

[2] Cf. *op. cit.* viii, s. 3, c. 3, f. 183^{v}b.

THOMAS OF YORK

THOMAS OF YORK

LITTLE is known of the life of Thomas of York, but from the letters of his friend, Adam Marsh, the following data may be gathered. By 1245, Thomas had entered the Franciscan Order and was sufficiently advanced to be using the *De Natura Rerum* of Rabanus Maurus and the *Metaphysics* of Aristotle. In 1251, however, he was still young enough for Adam Marsh to discourage his promotion to a lectureship on the grounds of his youth. Thus the wish of William of Nottingham, the English Provincial and great promoter of education, to secure for Thomas the Oxford Doctorate was not fulfilled. At last, on 14 March 1253, Thomas, on account of his eminence of character, ability, and learning, incepted in Theology.[1] Following his inception, he lectured at Oxford, possibly until 1256, when he succeeded William de Melitona as the sixth regent of the Cambridge studium. After this, we have no further biographical information of Thomas. The year 1260 has usually been taken as the year of his death. We can only say that it is highly probable that he did not die before that year, since, as Fr. Longpré [2] points out, it is not mentioned either in Eccleston's *Chronicle* or in the correspondence of Adam Marsh, both of which close about 1259.

HIS PLACE IN THE OXFORD SCHOOL

Though Thomas was personally known to Grosseteste, as well as to Adam Marsh, it is not certain whether he had joined the Order before Grosseteste ceased to lecture in 1235. In any case, Thomas must have derived a knowledge of the Bishop's teaching directly from his pupils, as also from his writings which had been bequeathed to the Oxford convent. Speaking of Thomas's *Sapientiale*, Longpré [3] writes, 'Composée à Oxford, elle perpétue les traditions philosophiques et scientistes de

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[1] For an account of the difficulties raised, because, according to the rules of his Order, Thomas had not previously incepted in Arts, see A. G. Little, *The Grey Friars in Oxford*, Oxford 1892, pp. 37–9, and 'The Franciscan School at Oxford' in *Arch. Fran. Hist.* 1926, p. 823.

[2] 'Fr. Thomas d'York, O.F.M. &c.' in *Arch. Fran. Hist.* 1926, p. 881.

[3] *Op. cit.*, p. 875.

Robert Grosseteste.'[1] This remark should be qualified, as it seems that Thomas was not so concerned with the perpetuation of tradition as with the popularization of the newly translated Aristotelian, Arabic, and Jewish works, towards which he appears to have been drawn by an irresistible fascination.[2] Thus, Peter the Lombard is cited only some four or five times, the Victorines are ignored, and Augustine is quoted much less often than Aristotle, Averroes, Avicebron, and Maimonides. It must not be supposed, however, that Thomas underestimated traditional authorities; it seems rather that this fourth Franciscan lecturer at Oxford[3] believed that the ideal way to teach philosophy was to present all the diverse solutions of a problem.[4] Hence when he discusses the Divine attributes, Aristotle, Algazel, Avicenna, and Averroes are cited as often as Augustine and Anselm; when he treats of man's knowledge of God and of Divine Providence, the *De Natura Deorum* of Cicero is constantly used; when the incorporeality of the soul and the question of its composition is under consideration, Avicenna is quoted; and lastly, the proofs of the existence of the angels are drawn from Avicebron.

Had Thomas developed a leaning towards any one non-

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[1] Perhaps this is just an unfortunate sentence, for later (*op. cit.*, p. 895) he well remarks, 'Si la pensée franciscaine s'en tint à la métaphysique augustienne et anselmienne et continua les traditions de l'école de S. Victor, ce ne fut pas en raison d'une connaissance imparfaite de la pensée d'Aristote, ainsi qu'on l'a répété souvent, mais en vertu d'un jugement motivé et avec une science des courants péripatéticiens et arabes, difficile a trouver au même degré après Thomas d'York, qu'elle opta pour la tradition'.

[2] Such a fascination had moved Archbishop Raymond of Toledo in the first half of the twelfth century to induce John of Spain and Gundissalinus to translate from the Arabic Aristotle and other writers. A similar fondness is found in Grosseteste, who constantly draws from the astronomical writings of Albumasar, Ibn Thâbit, and Alpetragius.

[3] It will not be out of place to repeat the list of the Franciscan lectors of the thirteenth century given in Little's *Grey Friars &c.*, p. 134 f.—Adam Marsh, Ralph de Colebruge, Eustace de Normaneville, Thomas of York, Richard Rufus of Cornwall, John Wallensis, Thomas Docking, William of Heddele, Thomas de Bungay, John Pecham, Henry de Apeltre, Robert Cross or Crouche, Radulphus de Toftis, Alanus de Rodano, Roger of Marston, Alan de Wakerfeld, Nicholas of Ocham, Walter de Knolle, Hugh de Hertepol, John of Pershore or de Persora, John of Berwick, Thomas of Barneby, Adam of Lincoln, William of Gainsborough, John Basset, Thomas Rondel or Rundel, Adam of Howden or Hoveden, Philip of Briddilton or Bridlington, and Peter de Baldesnell.

[4] At times, this makes it difficult to ascertain his own view.

Scholastic author, it might not have been surprising, but it is remarkable to find him quoting with readiness such entirely different types of thinkers as Plato, Aristotle, Algazel,[1] Avicenna, Averroes, Avicebron, and Maimonides.[2] It must not be concluded, however, that our philosopher was a mere compiler of philosophical opinions,[3] for on vital points he takes up a very definite position; thus, he rejects the opinion of Algazel, Avicebron, and Maimonides that in generation forms come *ab extra*, and he criticizes the psychology of Aristotle as being imperfect because it treats of the soul only in its natural aspect.

In referring to the interest of Thomas's *Sapientiale* as an independent system of Metaphysics of about 1250, Mgr. Grabmann [4] remarks: 'Philosophiegeschichtlich beachtenswert ist auch die Tatsache, dass ein Franziskanertheologe, ein Vertreter der älteren Franziskanerschule, Verfasser dieser grossen Metaphysik gewesen ist.' It is, of course, 'beachtenswert' from the point of view of the comparatively recent discovery of the manuscripts, but it should not be a matter of surprise from the point of view of the old Franciscan School. The writings of that School are still too little known to justify any closed conceptions of its activities such as are fostered by the vicious obsession of modern writers to label the Oxford Franciscans as disciples of Augustine and of Bonaventura or as precursors of Scotus.

THE WRITINGS OF THOMAS OF YORK

According to Fr. Longpré,[5] the extant works of Thomas are (1) *Manus quae contra Omnipotentem*—a treatise dealing with the struggle between the secular clergy and the mendicants,[6] (2) a *Sermon* on the Passion in MS. B. 15. 38 of Trin. Coll., Camb., (3) *Letters* no. 189 and 196 in Brewer's edition of the

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[1] Longpré in *op. cit.*, p. 890 asserts that the plan of Books 3 and 5 of the *Sapientiale* is taken from Algazel.

[2] Maimonides or Rabbi Moyses (as he is called) is a great favourite with Thomas, and it is not improbable that Thomas's strong personal tone, e.g. 'Volui manifestare tibi' and 'oportet te scire', was suggested by the writings of the Jewish philosopher.

[3] On. f. 85^{v}a he seems to speak scornfully of Gundissalinus when he says 'Gundissalinus imitator, immo compilator Algazel et Avicennae'.

[4] 'Die Metaphysik des Thomas von York', in *Beiträge* series, Supp. I, Münster 1913, p. 192.

[5] *Op. cit.*, p. 882.

[6] This has been edited by M. Bierbaum, 'Bettelorden und Weltgeistlichkeit an der Universität Paris' (*Franzisk. Studien*, Beiheft 2), Münster 1920, pp. 37–168.

Letters of Adam Marsh, London 1858, (4) the opusculum, *Comparatio Sensibilium*,[1] and (5) The *Sapientiale*.

Of these works, I will confine my attention to the *Sapientiale*,[2] which is a Summa of metaphysical problems, and not a commentary on Aristotle's *Metaphysics*. This work, which according to Mgr. Grabmann[3] was first mentioned by Sbaralea (d. 1763) as existing in the S. Croce library of Florence, is found to-day in three MSS.—Cod. Vat. Lat. 4301 discovered by Mgr. Grabmann, Cod. Vat. Lat. 6771 discovered by Mgr. Pelzer and wrongly entitled *Summa Eboracensis super quattuor libros Sententiarum*, and Florence, Bibl. Naz. Conv. Sopp. A. 6. 437. This last I have used for the following exposition of the philosophy of Thomas of York.

This manuscript is written with the familiar brown-fading ink in a clear, round, English hand of the late thirteenth century. There are a few passages in very black ink and a number of folios in a second and third, and perhaps a fourth hand. The folios, numbering 251, measure 320 × 220 mm. and the writing 250 × 155 mm. Each side of the folio has two columns of approximately 55 lines each; in the lower margins are the headings of the chapters, and in the side margins a number of notes signifying the chapters, some of the authors cited in the text, &c. Folio I is blank except for the verso inscription in a late hand—*Liber conventus sancte crucis de Florentia ordinis Minorum, Scriptum fratris Thome de Eboraco super metaphysicam Aristotelis no. 552.* Folios II^{r}a–V^{v}a contain an incomplete table of contents now edited by Fr. Longpré.[4] At the beginning of the table is written *Capitula primi libri metaphysice fratis Thome de Eboraco.* Folios 1^{r}a–249^{v}b contain the text, f. 155 being unnumbered and f. 211 being only a longitudinal half sheet. At the beginning of the text we find *Hic incipit liber metaphysice fratris Thome Eboracensis de ordine minorum.* There is no colophon, for the text ends abruptly because of the death of the author; a marginal note, however, says *hic videtur deficere* and Fr. Longpré[5] takes this to refer to the additional five chapters which are found in Cod. Vat. Lat. 6771.

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[1] Cf. n. 5, *infra*.

[2] This is the name given to it by Thomas himself. Cf. Longpré, *ibid.*, p. 890.

[3] *Op. cit.*, p. 183.

[4] *Op. cit.*, p. 906 f.

[5] *Ibid.*, p. 888. In the same article (p. 891) he also suggests that Bk. 8 of our MS. (ff. 230^{v}b–49^{v}b) is really the Opusculum '*Comparatio Sensibilium*',

Concerning the date of the production of the *Sapientiale*, it can only be said that if Fr. Longpré [1] is right in suggesting that the treatise, *Manus quae contra Omnipotentem*, was written before October 1256, then the account of the relation between genus and differentia, which chapter 18 of this treatise announces 'manifestatur alibi',[2] means that the *Sapientiale*, or at least a part of it, was written before this date.

WORKS CITED IN THE *SAPIENTIALE*

A. *Ancient Philosophers.*

Alexander: Comm. on Aristotle (cited only according to Averroes or Rabbi Moyses).

Aristotle: Met., De Animalibus (De Gen. An.), De Caelo et Mundo, De Anima, Post An., Top., Praedic., Physics (of this he mentions two translations), Ethics, De Gen. et Corr., De Sensu, De Morte et Vita.

Cicero: De Nat. Deorum, De Divin., Tusc. Disp., De Amic., Paradoxa, Hortensius (as cited in Augustine's Confessions).

Hermes Trismegistus: Ad Asclepium, De Sex Principiis,[3] De hedera.[4]

Philomeus: cited on f. 170^{v}a without the title of the work. It probably should be 'Ptolomeus'.

Plato: Timaeus (known only through the commentary by Chalcidius), Phaedo (most probably known through Macrobius's commentary on Somnium Scipionis, but see p. 3).

Pliny: De Naturali Historia.

Plotinus: cited without the work, probably at second-hand from Macrobius.

Porphyry: De Specie (this is the chapter on Species in the Introduction to the Categories of Aristotle which was regularly prefixed to the Organon).

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which was probably a detailed draft of the *Sapientiale*. I had thought the folios merely disarranged, and under this impression introduced in my exposition all references to this section as belonging to the *Sapientiale*.

[1] *Ibid.*, p. 880.

[2] *Ibid.*, p. 884.

[3] One might think that the author of this was Gilbert de la Porrée, but Thomas is right. There existed in his day a work of this title ascribed to Hermes Trismegistus. It is extant in MSS. Bodleian 464 and Digby 67 of the Bodleian Library—cf. L. Thorndike, *A History of Magic and Experimental Science*, London 1923, vol. 2, p. 222.

[4] This is probably a bad translation from the Greek. Thorndike, *op. cit.*, pp. 219 and 350, mentions an Hermetic work *De Hellera* or *De deo deorum* as quoted by William of Auvergne in his *De Legibus*, c. 23 (p. 64): II. iii. 22 (p. 999 of the 1591 Venice edition). The passage referred to by William is to be found in the *Asclepius* printed with the words of Apuleius, ed. Thomas, Teubner Series, vol. iii, c. 38, p. 78.

⟨Pseudo⟩-Apuleius: De Deo Socratis—as cited by Boethius.
Seneca: Epist., De Senectute, De Clementia, De Beneficiis.
Themistius: Comm. on the De Caelo et Mundo, Abbreviatio de Anima—as cited by Averroes.
Theophrastus: Comm. on Aristotle—as cited by Averroes.
Valerius Maximus: cited without the work, which must have been the Dicta et Facta Memorabilia.
Varro: cited without a title, and known only through Augustine's works.

B. *Fathers and Latin Philosophers.*

Ambrose: Hexaëmeron, a Sermon.
Anselm: Monologium, Proslogium, De Incarnatione, De Veritate, De Casu Diaboli, Cur Deus Homo, De Fide Trinitatis, Contra Insipientem.
Augustine: De Civ. Dei, De Trin., De Lib. Arb., De Gen. ad Litt., De Quant. An., Conf., De Vera Relig., Contra Faustum, Soliloquium, Contra Academicos, Retractationes, Contra Adver. Legis et Proph., Contra Iulianum, De Doctrina Christiana, De Cognitione Vere Vitae, Contra Haereses, De Musica, De Immort. An., Contra Fidem Arianorum, De Natura Boni, De Duabus Animabus contra Manichaeos, Contra Mendacium, on Exodus, a number of letters, and the Pseudo-Augustinian works, Hypognosticon and De Mirabilibus.
Boethius: De Consol., De Trin., De Hebdom., De Duab. Nat., Arith., Contra Nestorium, Super lib. Praed., De Bono.
Cassiodorus: Super Psalmos.
Chalcidius: Comm. on Timaeus.
Chrysostom: cited without title of the work.
Claudianus ⟨Mamertus⟩: De Anima.
Dionysius: De Hier. Ang., De Div. Nom., De Myst. Theol., Ad Titum.
Eriugena.[1]
Gregory the Great: Moralia.
Gundissalinus: De Creatione Caeli ⟨De Processione Mundi⟩, De Anima.
Jerome: Epist. ad Dam., Translation of the Cosmographia[2] of Ethicus.
John Damascene: Work not cited, but is the De Fide Orthodoxa.

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[1] I had not seen this, but Longpré in *op. cit.*, p. 899 says that he is quoted once and that on f. 18r.

[2] On this spurious work see Bacon's *Opus Majus*, ed. Bridges, Oxford 1897, vol. i, p. 302, n. 1. According to Thorndike, *op. cit.*, vol. 1, p. 600, it was written by Aethicus Istricus, probably not before the seventh century. It was translated into Latin by the priest Jerome (Hieronymus Presbyter).

Macrobius: cited without the title, but is probably the Somnium Scipionis.

Papias: undoubtedly the eleventh-century grammarian, cited without title of the work.

Peter Lombard: Sentences cited without the author's name.

Rabanus: De Natura rerum.

C. *Arabian and Jewish Philosophers.*

Albumasar: De Intellectu. References to chapters only have proved to be from his Introductorium in Astronomiam.

Alfarabi: De Entibus Transmutabilibus, Super de Causis.

Algazel: Met., De Naturalibus.

Averroes: Comms. on Met., Ethics, De Caelo et Mundo, De Anima, and Physics, De Substantia Orbis.

Avicebron: De Fonte Vitae.

Avicenna: Met., De Anima, Physics, Lib. Medicinae, Scientia Nat., Super Eth., Tractatus de redargutione.

Isaac ⟨Israeli⟩: De Diffinitionibus.

Maomet: quoted without the work as a disciple of Alkindi.

Rabbi Moyses: Mater philosophiae.[1] This is the Dux seu director dubitantium of Maimonides which was translated into Latin in the early part of the thirteenth century.

D. *Anonymous Works.*

De Articulis Fidei: Probably by Nicholas of Amiens, though ascribed to Alanus de Insulis.

De Collectionibus Ce. et Mu.

De Causis: on f. 9^{v}a he takes the author of this work for a Christian.

De Fide et legibus: this is by William of Auvergne.

De Diff. Spiritus et Animae: Costa-ben-Luca.

De Spiritu et Anima: Alcher of Clairvaux.

De Motu Cordis: Alfred of Sareshel who dedicated his work to Alexander Neckam.

De Regulis ecclesiasticis.

De Universo:[2] William of Auvergne.

Expositor of Dionysius in lib. de Sacramentis: This is by Thomas Gallo, Abbot of St. Andrew's at Vercellensi, master at Paris *c.* 1219, died 1226.

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[1] On this see Longpré, *op. cit.*, p. 878.

[2] Duhem in *Le Système du Monde*, t. 3, p. 250, says of this work: 'Rien n'est plus propre à faire apprécier la renaissance scientifique dont la Chrétienté latine fut le théâtre pendant le second quart du xiii^{e} siècle.'

THE THEORY OF BECOMING[1]

Thomas accepts the fundamental elements in the theory of act and potency[2] and, following Rabbi Moyses *in libro quem vocavit 'matrem philosophiae'*, c. 29[3] and Averroes *super* 11 *Met.* 7[4], definitely identifies these terms with form and matter. Becoming is the gradual fulfilment of the desire in potency or matter for the perfection, goodness, and unity that are conferred by the advent of form or act, the fulfilment being illustrated by Avicebron's statement in Lib. v. c. 32[5]: '⟨Exemplum⟩ . . . motionis materiae ad formam et applicationis formae cum illa est motus animae privatae aliqua scientia ad inquirendum eam et ad recipiendum; et cum accesserit forma illius scientiae ad animam et extiterit in ea, anima fiet per eam sciens, id est, sustentatrix formae illius scientiae. Similiter cum forma accesserit materiae facta est per eam materia formata et sustentatrix ⟨formae⟩'.

Matter can be thus formed because, as Aristotle says in *De Caelo et Mundo* 3, c. 14,[6] it is in potency to all forms and has nothing of actuality; or because, as he remarks in *Met.* 7, c. 13,[7] 'it is that by which a thing is in potency to being and non-being'; and similarly, in *Met.* 7, c. 7[8], 'Matter is a substance in which none of the ten *genera* exists *per se et essentialiter*, for if they did, matter could not receive forms indifferently'. Other philosophers who express the same opinion of the nature of matter are Avicebron (5, c. 18),[9] who calls it a subject receptive of all forms, Rabbi Moyses, who in c. 25[10] compares it to a translucent crystal without colouring, and Augustine, who in *super Genesim* 1, c. 5[1] speaks of it as unformed capacity (f. 233^{r}b). These opinions, however, are intended to contrast the role of matter in change with that of form; if matter were considered in its true relation to form, it would have to be regarded as privation rather than pure potency—cf. Aristotle, 2 *Phys.* 3 and his expositor.[2] For this reason we find Aristotle sometimes speaking of two principles of change and sometimes of three, but no contradiction is implied because privation is merely transmutable matter. In fact, according to Averroes, *super* 1 *Phys.* c. 12,[3] privation can be regarded as a principle only inasmuch as it is a *sine qua non* for subsequent actualization; and Aristotle himself, according to the same expositor,[4] speaks of privation as a principle *per accidens* rather than *per se*, adding in c. 14[5] that when a new form is received, privation is corrupted wholly or *per se*, while matter is corrupted *per accidens*, that is, through privation.

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[1] Since the following exposition is based on the manuscript, I have followed closely Thomas's method of discussing the problems and have reduced my own comments to the minimum. I have also tried to give as much as possible of the text and to be literal in the translated parts.

[2] The following theory of becoming is taken from ff. 69ʳa–72ʳb of the Florentine MS.

[3] Maimonides, *Dux seu director dubitantium aut perplexorum*, ed. A. Justiniani, Paris 1520, lib. i, c. 27, f. 10ᵛ.

[4] *Opera Aristotelis*, apud Juntas, Venetiis 1550. This edition contains the commentaries of Averroes, and our particular reference is to be found in the *commentary* on the *Metaphysics*, lib. 12, summa 1, c. 4, f. 146ʳa.

[5] *Avencebrolis Fons Vitae*, lib. v, c. 32, p. 316: 9, ed. C. Baeumker, Münster 1892 (*Beiträge* series, Bd. 1).

[6] *Opera Aristotelis*, lib. iii, S. 8, c. 3, f. 104ᵛb.

[7] *Ibid.*, lib. vii, S. 2, c. 6, f. 81ʳb.

[8] Cf. *Ibid.*, S. 2, c. 1, f. 74ᵛb.

[9] *Loc. cit.* 5, c. 18, p. 291: 21.

[10] *Loc. cit.* i, c. 27, f. 10ᵛ.

Privation and matter, then, are not two different actualities *secundum subiectum*. On the other hand, they are not absolutely identical, for matter continues to exist when privation as such is corrupted by the generation of the new being; hence, matter is a *principium essendi* and privation a *principium transmutationis*. Again, the fact that the degree of privation in matter varies *secundum gradum mixtionis formae* proves that matter and privation are different. Further, the matter of a substance is more of an actuality than the privation, for it has at least a susceptibility to its present form, while the privation refers to a contrary of that form, and is, in this sense, a *non-ens*.—cf. Averroes, *super ibid.*, c. 12.[6] Because privation is not an *ens per se*, Avicenna in 1 *Phys.* c. 2[7] remarks, 'privatio non addit esse super hylem'.

Yet as far as the newly generated being is concerned, Thomas, like Grosseteste, thinks that some mode of being must be granted to privation, for he agrees with Aristotle's statement (1 *Phys.* 13),[8] 'nihil fit omnino ex non ente simpliciter'. Only when privation as a principle *per accidens* is contrasted with a principle *per se*, may generation be said to originate from non-being; when privation is considered by itself, it is not nothing, for as Aristotle, according to Averroes, 4 *Met.* 5,[1] says, 'inter negationem et privationem differentia est . . . quod negatio est ablatio alicuius necessarii simpliciter', and, continues Thomas, 'hanc negationem dixerunt aliqui puram et praecisam privationem secundum quod dicit Rabbi Moyses c. 135 [2]; privatio vero secundum Aristotelem est negatio alicuius a natura determinata et hanc dixerunt aliqui privationem non puram'. Therefore, it is a mistake to limit being to act, for, besides act, both matter and privation have being, though of these two 'materia magis appropinquat enti in actu, et privatio magis elongatur ab esse quam materia' (f. 232^{v}b).

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[1] Cf. i, c. 15, Migne, *P.L.* 34: 257.

[2] *Lib.* ii, S. 1, c. 6, f. 25^{v}b.

[3] i, S. 3, c. 3, f. 20^{r}a.

[4] i, S. 3, c. 4, f. 21^{r}a.

[5] i, S. 3, c. 5, f. 22^{v}a.

[6] i, S. 3, c. 4, f. 21^{r}a.

[7] *Opera*, Venice 1508. The *Physics* is the *Sufficientia*, f. 15^{r}a.

[8] Lib. i, S. 3, c. 4, f. 21^{r}a.

Later (f. 79^r), when proving that no being other than God is simple, Thomas stresses to the utmost the difference between matter and privation. Quoting Gundissalinus [3] as saying that two things are found in matter, namely, its essence and potency, and concluding from this that matter is in some sense composite, he writes, 'Dicam tibi aliud ex praedictis quod si materia prima esset una omnino et in substantia et in potentia, ex ipsa et forma prima non fieret nisi unum, et non esset alia causa multitudinis in universo. Habeo autem hoc ex sermone Aristotelis quem supra dixi tibi quod si esset una in potentia sicut in substantia, non esset causa multitudinis, et ideo non tantum necesse est ponere unam potentiam in materia sed multas, quapropter necesse est ponere aliquam dualitatem in materia, et non omnimodam simplicitatem.' Again, if, as Avicebron in 4, c. 11 [4] declares, form is multiplied and divided through the divisibility of matter, matter itself cannot be simple. Lastly, Avicebron in 2, c. 16 [5] says that all that can be divided by intellect is composite; but intellect distinguishes the essence of matter from its potency; therefore matter must be composite.

Indeed, even when by applying the term 'privation' to the desire in matter for form, we attempt to reduce the principles

[1] Lib. iv, S. 1, c. 2, f. 33^{r}a.

[2] *Op. cit.* iii, c. 11, f. 75^r.

[3] *De Processione Mundi*, ed. G. Bülow, Münster 1925 (*Beiträge* series, Bd. 24) p. 33.

[4] *Op. cit.* iv, c. 11, p. 236: 18.

[5] *Ibid.* ii, c. 16, p. 51: 18.

of change to two *secundum rationem* as well as *secundum rem*, we cannot completely identify matter and privation, for, since generation cannot originate from simple non-being, privation is in a sense the incomplete form because the complete reception of form involves the destruction of privation though not of matter. Such being the case, one might have supposed that Thomas would have regarded privation as nearer to actuality than matter, but in reality, he did not; he attributes more actuality to matter because it is, as Aristotle [1] and Averroes, *super* 8 *Met.* 1 [2] hold, a fixed substance that remains throughout transmutation.

TYPES OF BECOMING

So far, Thomas's view of the factors required to interpret becoming has been outlined. We turn now to his exposition of the varieties of becoming. Gundissalinus in c. 7 [3] says, 'Omne quod exit in esse, exit aut per generationem, aut compositionem, aut creationem'. Of these Thomas thinks that the most fundamental type is creation, for by this process the first principles of things, viz. matter and form, come to exist (f. 68^{v}a). Unlike the other types of becoming, creation is not strictly an *exitus de potentia ad effectum*; it is production out of nothing, or, as Gundissalinus in c. 16 [4] writes, an 'exitus formae ab eius (sc. creatoris) sapientia et voluntate et impressio eius in materiam. Unde prima materia et prima forma nihil prius est nisi creator eorum' (f. 52^{r}a). These first principles must be two, for there being nothing intermediate between the Creator and the created, the first recession from the unity of the Creator must be binary (cf. p. 63). From the last remark it is clear that matter and form were created simultaneously, the only possible priority of matter being, as Augustine in *Super Genesim* [5] suggests, one *secundum originem* (f. 72^{v}b) and not, as Plato thinks, a confused pre-existence from all eternity [6] (f. 212^{v}a).

What the first composite resulting from the production of these two principles was, Thomas does not tell us. Most probably it was the angelic nature, for as we shall see later, the only beings created by God are angels, human souls, celestial bodies, and the four elements. On f. 115^{v}b he casually mentions that the two first forms that divide the first composite are the corporeal and the incorporeal, and these have their corresponding matters, namely, *materia situalis* and *non situalis*. The corporeal form and its *materia situalis* are reproduced in both the celestial bodies and the elements.

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[1] viii, S. 1, c. 2, f. 99^{r}a.

[2] viii, S. 1, c. 2, f. 99^{r}b.

[3] *Op. cit.*, p. 20.

[4] *Op. cit.*, p. 40.

[5] i, c. 15, *P.L.* 34: 257 and viii, c. 20, *P.L.* 34: 388.

[6] The question of an eternal creation will be dealt with under the section on God.

The second type of becoming, namely generation, implies both a pre-existing agent which has in itself a power of acting, and a matter with an aptitude for the form that is to be realized, and further, in addition to the agent, there must be a more remote mover or movers which will vary in number according to the degree of actualization in matter in respect of the coming form (f. 73^{r}a). We shall have occasion to touch on these remote movers on p. 75 and here we need only remark that Thomas has nothing of Grosseteste's interesting theory of the exertion of force by the agent. Indeed, only two further remarks from Thomas are needed to supplement what has already been said concerning matter and its aptitude (*a*) the aptitude is fulfilled only progressively, the present form gradually receding before the new form, (*b*) the susceptibility of matter is never exhausted by any form, for, since it is so far removed from being perfection and permanence, its very nature is, as Avicebron in 5, c. 34 [1] says, to desire one form after another.

It is, nevertheless, in his theory of the intrinsic power of development found in things that Thomas advances beyond Grosseteste and shows his real affinity with the Neo-Platonism of Avicebron. On f. 244^{v}a where he is arguing that if a potency is not a real *ens* possessed by things, they will have no action, he writes, 'Causa autem huius erroris est vulgaris estimatio quae credit non esse ens nisi quod est in actu, et quod unum solum agens est prima causa in qua sola est potentia activa, et non est in creaturis nisi potentia passiva secundum tales. Unde dicunt deum agentem omnia immediate, quod est impossibile; quia si non est diversitas actionum in creaturis nec virtutum, et ita nec essentiarum, et ita essent omnia unum, quod est inconveniens.'

In animate generation, this power of acting as found in the semen is what Augustine in *De Trinitate*, 3, c. 9[1] calls 'radices' or 'rationes seminales', or what Aristotle terms 'potentiae activae naturales' defining them in 5 *Met.* 5[2] and 9 *Met.* 2[3] as 'principium motus et transmutationis in aliud secundum quod aliud'—f. 246ᵛb. Thomas continues, 'Unde collectionem omnium harum potentiarum activarum naturalium seu rationem seminalium seu numerorum estimo eundem appellare naturam quam diffinit in 3 *Phys.* sicut supra dictum est, quod natura est principium motus et quietis eius in quo est per se et non per accidens. . . . Ceterum etiam potentiae possunt dici formae licet incompletae. Nam, sicut dicit Aristoteles 2 *Phys.* 2[4] et expositor eius,[5] forma dicitur de altera parte contrarietatis cui admiscetur privatio sicut de diminuto, et de reliqua cui non admiscetur sicut de perfecto. Et ipsa etiam potentia activa dicitur forma vel ex forma ab Averroes *super* 9 *Met.* 2,[6] et quamvis quaelibet harum rationum vel numerorum dici potest natura, similiter et potentia activa nihilominus est forma, cum ipsa etiam sit principium transmutationis in aliud. Tamen quia haec natura eadem in genere ponitur et haec forma sub esse incompleto propter hoc necessario indiget principio transmutante, a quo non patitur natura vel potentia secundum quod est forma essentialiter sed per accidens, videlicet secundum quod est in passivo haec est in materia. Unde forma quae non est in materia non patitur.'[7]

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[1] v, c. 34, cf. p. 319: 20.

Nature, then, is the power of the active potencies or the incomplete forms in a being to develop themselves when the appropriate conditions have been set up by an efficient cause. Accordingly, as Averroes, *super* 9 *Met.* 2[8] supposes, things will have a passive power by which they can be acted upon and an active power by which they can act—the former being reducible to matter and the latter to the incomplete form. Of these powers Thomas says, 'Haec potentia activa secundum Aristotelem *ibidem*[9] est id quod est principium transmutationis in aliud,

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[1] iii, c. 8 and 9, *P.L.* 42: 875 f. (Other passages in Augustine in which the theory occurs are *De Vera Relig.* 42, *P.L.* 34: 158 and *Super Gen. ad Litt.* v, 23, *P.L.* 34: 357.)

[2] Cf. v, S. 1, c. 4, f. 50ᵛa ff.

[3] ix, S. 1, c. 2, f. 106ᵛb.

[4] Cf. i, S. 1, c. 7, f. 25ᵛa.

[5] *Ibid.*, f. 25ᵛb.

[6] ix, S. 1, c. 2, f. 107ʳa.

[7] As we shall see on pp. 92 ff. and 103, Thomas holds that all created forms have matter and therefore potency for change.

[8] ix, S. 1. c. 2, f. 107ʳa.

[9] *Ibid.*, f. 106ᵛb.

secundum quod aliud, i.e. per quod fit transmutatio alicuius in aliud; potentia vero passiva est id quod recipit passionem in se ex alio, secundum quod est aliud, et per quam patitur aliquid recipit transmutationem ab alio . . . Ex hoc manifestum est quod potentia activa et potentia passiva possunt esse similes in eodem subiecto ut in naturalibus in quibus forma materialis aliquo modo agit et aliquo modo patitur. Unde in aggregato naturali ex materia et forma est aliqua potentia activa ⟨et aliqua⟩ passiva in quibus educitur forma de potentia materiae . . . ⟨sed⟩ potentia activa et passiva, etsi possint esse in eodem, non tamen secundum idem, nam . . . potentia activa est actus sive habitus et passiva privatio'. (f. 243^{v}b.)

In addition to natural generation, of which Thomas has spoken only in a very general manner, there is artificial generation or generation *secundum quid utpote accidentium*. In this variety, as Averroes in 1 *Phys.* 11 [1] says, the subject and its definition remain fundamentally permanent, while in natural generation both change, because of the change in substantial form. In artificial generation the whole subject or composite is the matter, and therefore the matter of this type of generation ought to be called artificial in order to distinguish it from the *materia prima* of natural generation—cf. Avicenna, 1, c. 17.[2] Similarly, in speaking of the form, we must adopt Aristotle's term 'artificial form', because its corruption does not mean the destruction of the composite—cf. Aristotle, 2 *Phys.* 2.[3]

In spite of these differences, the two varieties of generation have a similarity, and this, in virtue of their form, for: 'Forma autem artificialis in materia et in anima artificis non differunt essentialiter, quia quaecumque fiunt aut a natura aut ab arte, aut ⟨ab⟩ utraque fiunt a sibi conveniente in nomine et forma, licet diversimodo, sicut dicit Aristotles 7 *Met.* 13 [4]; nam cum artificiatum sit compositum ex materia et forma, non est in anima artificis ex generato nisi forma tantum, quae est pars generati, et hoc per actionem artificis ipsam, aut congregatum non est in anima sicut est dispositio in naturalibus ut totaliter fiat a conveniente, sed tantum forma. Unde domus in lapidibus fit a forma quae est in mente artificis sicut dicit Averroes super eundem locum.[1] Nam quodadmodum forma artificii est in artifice in potentia, ita forma naturalis generandi est in semine in potentia, licet diversimodo secundum diversitatem modorum generandi sicut dicit Aristoteles *ibidem*.[2] Differentia tamen est inter formam naturalem et artificialem, quoniam ⟨in⟩ individuis naturalibus hoc individuum non est hoc nisi per formam suam, in artificialibus non nisi per suam materiam sicut dicit Averroes *super* 2 *De An.* 2.[3] Et propter hoc, forma artificialis, si amoveatur, non auferetur nomine et diffinitione, e contrario est de forma naturali, sicut dicit Aristotles 2 *De An.* et expositor eius [4]; et ratio est eiusdem quia in rebus naturalibus primo dicitur nomen de forma, secundo de aggregato; in artificialibus vero e contrario. Ceterum operatio artis magis denominatur a termino a quo, operatio naturae a termino ad quem, sicut manifestum est ex Aristotle 2 *Phys.* 2 [5] et expositore eius [6] (f. 236^{r}a, cf. ff. 247^{v}a, 72^{v}b).

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[1] i, S. 3, c. 3, f. 18^{v}a.

[2] Cf. *Sufficientia*, lib. 1, c. 12, f. 19^{v}b.

[3] Cf. ii, S. 1, c. 1, f. 23^{r}a, f.

[4] vii, S. 2, c. 6, f. 81^{v}a.

MATTER AND FORM ARE THE ROOTS OF ALL THINGS

Up to this point we have treated of Thomas's theory of matter and form as synonyms for potency and act; we have now to ask whether such factors are rightly concluded to be the two roots of all things? Thomas thinks they are, and finds support for this opinion in seven considerations from Avicebron—cf. f. 69^{r}a–69^{v}a. (1) *Per considerationem creationis in creante et creato*. The Creator is one only, and therefore, if the creature is to differ from Him, it ought to have at least two factors, especially since the first recession from unity is binary. Consequently, creatures cannot possess only matter or only form—Avicebron, IV, c. 6.[7] Could such roots be two forms? No, for as Gundissalinus c. 7 [8] says, forms cannot exist apart from matter. Could they be two matters? No; all existence comes from form. The two principles, then, must be matter and form. Moreover, it is natural that a perfect Creator should wish to create beings as perfect as possible and to give them a 'materiam sustinentem et formam sustentatam' by which they would resemble Himself. (2) *Per naturam resolutionis eorum quae sunt in se simplicia*

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[1] vii, S. 2, c. 6, f. 82^{r}a.

[2] *Loc. cit.*

[3] ii, S. 1, c. 1, f. 126^{v}b.

[4] ii, S. 1, c. 1, f. 128^{r}a.

[5] ii, S. 1, c. 7, f. 25^{v}a.

[6] *Ibid.*

[7] iv c., 6, p. 222: 24.

[8] *Loc. cit.*, p. 21: 5.

vel principia. Avicebron in i, c. 6[1] holds that if things were resolved into only one principle, it would need to contain the diversity of things. Therefore there must be two principles, and, as we have seen, these cannot be either two matters or two forms. (3) *Per diversitatem et convenientiam ipsarum rerum.* As Avicebron in iv, c. 6[2] asserts, things must have something in which they agree and something by which they differ. This means that matter and form must be constituents of things. (4) In the same passage[3] Avicebron finds these two principles to be borne out by our method of understanding by means of 'genus' and 'differentia', that is, by our division of things into the formed and form. Further, we can apprehend only the finite; but the finite means form which, in its turn, implies matter. Therefore, whatever the intellect apprehends must have matter and form. (5) *Per comparationem extremorum*—Avicebron, iv, c. 6.[4] If there is continuity from the lowest to the highest beings, and the lowest (i.e. corporeal substances) have matter and form because they have three dimensions, the highest creature and all mediate beings must have matter and form. (6) *Per proprietates materiae et formae universalis*—Avicebron, i, c. 10.[5] We know things by their inseparable properties. Now the inseparable properties of *materia prima* are freedom from existence in another, unity of essence, the sustaining of diversity, and the giving to every creature its essence and name; the inseparable properties of form (cf. *ibid.*, c. 13)[6] are subsistence in another, and the perfecting and actualizing of the essence of that in which it exists. Consequently, since these properties are found in all things, universal matter and form exist in all things. (7) *Per viam inductionis*—Avicebron, v, c. 14 and 15.[7] By the induction of all sensible and intelligible substances and the abstraction and composition of their forms with matters, we come to the *esse* of universal matter and form.

By these arguments Thomas feels justified in supposing matter and form to be the two roots from which all things come to be and into which all are resolved.

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[1] i, c. 6, p. 9: 1 f.

[2] iv, c. 6, p. 223: 10.

[3] iv, c. 6, p. 223: 12.

[4] iv, c. 6, p. 226: 1.

[5] i, c. 10, p. 13: 18.

[6] i, c. 13, p. 16: 9.

[7] v, c. 12, cf. p. 278: 10.

MATTER IN ITS STATIC ASPECT

To consider these two roots of all things from an abstract point of view is a task that Avicebron in 5, c. 1 [1] regards as most difficult, and yet most valuable because it leads to a knowledge of the ultimate end (f. 74ʳb). Speaking of its value, Thomas writes, 'Addam ad hoc quod materia et forma sunt sicut liber et figura, verbum et tabula, materia enim est tanquam liber apertus, forma tanquam verbum dispositum ex quo lector adquirit finem scientiae et perfectionem sapientiae. Materia etiam est tanquam tabula proposita et forma tanquam figura depicta quam si inspector comprehenderit, movebitur et desiderabit acquirere pictorem huius formae mirabilis et creatorem huius sapientiae nobilis quoniam haec est via ascendendi ad scientiam eius sicut dicit Avencebrolis, 5, c. 35 [2]—(f. 88ᵛa).

In considering matter in its own right and not merely as a subject, we have to discuss firstly the problem of its essence—cf. ff. 74ʳb–75ᵛb. Augustine and Aristotle (4 *Phys.*, c. 11) [3] maintain that although matter does not exist apart from form, it is distinct from form *secundum rationem seu definitionem*, and the former in *Contra Adversarium Legis* lib. 1 [4] adds that whatever is made has its own essence. With this agrees Avicebron's conclusion in 5, c. 10 [5] that if matter was made by God, it will have its own proper idea in the Divine mind. In v, c. 9 [6] the Jewish philosopher also explains that there may be two kinds of being, namely, *esse in potentia* and *esse in actu*, and that the former is applied to both matter and form *per se*, while the latter is applicable to both of them in union. Further, Gundissalinus in *De Creatione* c. 10 [7], contributes two arguments for the entity of matter: (*a*) if matter moves towards form, it must have its own being and even a being prior to form, and (*b*) if things are composed of being in potency and being in act, the first as a part of the composite must contribute something. In fact, matter, as a part of things, will even be a substance in the sense that it is an *ens* not inhering in a subject—cf. Avicenna, 2 *Met.* 1 [8]; certainly it could not be an accident if it sustains form. Moreover, were it not a substance, there would be no diversity of substances, because form being undivided does not give diversity. Lastly, Avicebron in I, c. 12 [1] has shown that matter must have its own essence, for if it is capable of receiving all forms none will be in it essentially; and clearly, if a susceptibility to contrary forms is found in matter, both of these forms cannot be the same as its essence.

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[1] v, c. 1, p. 257: 14.

[2] v, c. 35, p. 321: 22.

[3] iv, S. 2, c. 6, f. 79ʳa.

[4] Not found.

[5] v, c. 10, p. 274: 21.

[6] v, c. 9, p. 273: 13.

[7] p. 28 f.

[8] ii, c. 1, f. 75ʳa.

Matter, then, must have its own being, but obviously, its being is not an actuality in the same sense as that of form; if it were, all generation would be alteration and matter would lose its fundamental characteristic of being in potency to all forms—cf. Averroes, *super* 3 *Ce. et Mu.* 14.[2] Besides, it behoves matter as the opposite extreme of the First Cause, Who is form without matter, to be without form. On the other hand, although it is true that matter can have properties and actual or formal *esse* only when joined to form, it does not follow that it is privation in the absolute sense, for as Avicebron in v, c. 9 and 10 [3] maintains, 'privatum absolute non est possibile ipsum exire ad esse'. For these reasons, Augustine in *super Genesim*,[4] et *Confess.* 12 [5] says that it is unformed and almost nothing, while Averroes in *super* I *Phys.* c. 13,[6] Plato in *Timaeus*,[7] and Gundissalinus regard it as something between pure being and non-being. The last in c. 12 [8] calls matter a 'possibilitas essendi'. If it be asked whether such a *possibilitas* is something or nothing, we have the reply of Gundissalinus: [9] 'Si nihil, igitur materia nihil est, et nomen materiae non est nisi vox cassa: si est aliquid, aut substantia aut accidens; si accidens, igitur habet subiectum in quo existat. Sed non erat nisi deus, in quo nullum accidens est. Igitur accidens esse non potuit. Si substantia contra, si materia vel haec possibilitas fuit inter aliquam et nullam substantiam, nec substantia nec accidens fuit. Praeterea, possibilitas est relata ad possibile, ipsa enim est rei possibilis et possibile non nisi potestate est possibile, quare ut videtur erit accidens'; and Thomas adds, 'Responsio eiusdem ad hoc videtur esse quod nec sit substantia nec accidens nam haec divisio in solis naturalibus est.' Moreover, 'Etsi potentia non sit ens simpliciter, tamen non est non ens' (f. 244^{v}a), for, as Avicebron in 1, c. 3 [1] says, the entity of potency is its power to become actualized. Again: 'Cum recipit formam, assimilatur ei quod est in actu, et cum dimittit eam, assimilatur ad non esse'—f. 233^{r}b. The most definite conception of this entity between being and non-being, which must of necessity be difficult because matter is known only through comparison with form, is to be found in Avicebron, 5, c. 11: [2] 'Aestima privationem materiae sicut tenebrositatem aeris, et aestima formam in ea sicut lumen, et considera aerem tenebrosum habentem esse in se ipso et habentem esse luminosum in potentia, cum caret lumine; similiter materiam quod habet esse in se ipsa, et habet esse in potentia, quod esse fit ex coniunctione materiae et formae, cum caret forma.'

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[1] i, c. 12, p. 15: 15.

[2] iii, S. 8, c. 3, f. 105^{r}a.

[3] v, c. 10, p. 275: 6.

[4] i, c. 15, *P.L.* 34: 257.

[5] Cf. xii, c. 6, *P.L.* 32: 828.

[6] Cf. i, S. 3, c. 4, f. 21^{v}b.

[7] *Timaeus*, 51.

[8] *Op. cit.* p. 32: 21.

[9] p. 33: 1.

The entity of matter being of such a nature, it cannot be said to exist in place alone, and when we speak of forms existing *in* it, as Avicebron in 5, c. 31 [3] says, we mean spiritual rather than corporeal place, just as we do when we speak of things existing in the will (f. 73^{r}a).

Likewise, Avicebron in 5, c. 31 [4] and Augustine in *Confess.* 12 [5] suppose that matter is not in time, for in that case it would have been generated from something that is not matter. It is, then, one of the essential features of matter that while it is that by which a thing can either be or not be, it, in itself, is ingenerable because there is nothing lower from which it can be generated, cf. Aristotle, 1 *Phys.* 14; [6] if it were generated, matter would not be simple but composed. Being ingenerable, it will also be incorruptible *per se*, though it is both generable and corruptible *per accidens*, i.e. through the privation which exists in it. Yet, even if matter *per se* is ingenerable, it need not be eternal; it is sufficient to hold that matter, like form, came into being through creation—cf. Gundissalinus, c. 13 [7] (ff. 74^{r}b–75^{v}b).

Since it is created, matter must of necessity be good, for Aristotle in 1 *Phys.* 9 [8] says that a thing cannot produce its contrary, and therefore whatever is produced by God must be good. Again, if a good form is produced in matter, matter must have the desire for goodness. Indeed, every being is good, though, as Boethius in 4 *De Consol.* 5[1] says, what is deficient in being is deficient in goodness. One cannot take the celestial bodies as an instance for proving that matter is the cause of corruptibility, since it is not because they lack matter that they are incorruptible, but rather, as Avicenna in *Met.* 3[2] asserts, because neither their forms nor their circular movements have contraries—ff. 73^{r}b, 73^{v}a, 91^{v}b.

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[1] i, c. 3, p. 5: 19.

[2] v, c. 11, p. 276: 14.

[3] v, c. 31, p. 314: 1.

[4] v, c. 31, p. 314: 7.

[5] xii, c. 8, *P.L.* 32: 829.

[6] i, S. 3, c. 5, f. 22^{v}a.

[7] p. 33.

[8] Cf. i, S. 3, c. 2, f. 15^{r}b.

Is matter one and the same entity in all generable and corruptible things? Thomas answers in the affirmative, adopting Avicebron's view in 1, c. 14[3] that if the forms, and therefore the qualities, of the elements are contraries, they will not mix unless there be something to unite them, at least according to local union, and this something that is common to them is matter. Again, Avicebron (*ibid.*) says that generation is only from contraries, and unless there be something common in which these contraries and generation can occur, a substance will have to be generated from a previous non-substance. Similarly, Aristotle in 1 *Phys.* 12[4] and Averroes on the same passage[5] regard the natural disposition in matter to receive contraries as a sign of its commonness. Consequently, matter is one *secundum subiectum*, or, as Aristotle in 4 *Phys.*, c. 16[6] supposes, according as it is a potency lacking all differentiating forms. But obviously, as Averroes, *super* 4 *Phys.*, c. 2[7] points out, such a unified matter exists only in the soul and not in nature, for matter without form cannot exist and so cannot be one.

Unity, then, as applied to matter may have two meanings: 'Una in se praeter omnem formam, quae est ut dixi numero et subiecto; et alia unitas est ex forma, nam sicut non habet esse nisi per formam, sicut nec unitatem; forma enim unitiva est et materia unum fit per formam sicut dicit Avencebrol, 5, c. 9.[8] Prima unitas est in potentia, secunda est in actu existendi sicut habetur ab Averroes et Avenceb. Et per hanc distinctionem solvere poteris apparentem contrarietatem inter Aristotelem qui, ut supra patuit, dixit quod materia est una numero et inter Avenceb. qui dicit quod materia non est una quia facit separationem'. Further, if matter were actually one in nature, only one composite could be generated. In reality, the number of potencies in matter must be as many as the number of generable species and one might even define matter as a 'subiectum sustinens potentiam essendi secundum varios respectus'. Therefore, as Averroes in *super* 11 *Met.* 3[1] contends, 'materia prima est una secundum subiectum, multa secundum habilitates'—ff. 72^{v}, 76^{r} and ^{v}, 235^{r}a.

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[1] iv, c. 3, *P.L.* 63: 799.

[2] Not found.

[3] i, c. 14, p. 18: 11.

[4] Cf. i, S. 3, c. 3, f. 19^{r}a f.

[5] Cf. *ibid.*, f. 19^{r}b f.

[6] iv, S. 2, c. 6, f. 78^{v}b.

[7] Cf. iv, S. 1, c. 12, f. 59^{v}.

[8] v, c. 9, p. 272: 18.

Besides the foregoing matter, which has this potential unity in terrestrial things, there is an altogether different sort existing in the heavenly bodies, a sort that has no admixture of potency or privation and, consequently, is free from generation and corruption, though not from local change—cf. Aristotle, 8 *Met.* 1,[2] Averroes, *super ibid.*,[3] and Rabbi Moyses, c. 70.[4] In addition to these two varieties, there is a third that is identical with the possibility of existence and of change and this is found in every creature. Hence there are three uses of the word 'matter': (1) proprie, scilicet cui admixta est privatio, secundum quam est principium generationis et corruptionis, et sic omne habens materiam est generabile et corruptibile, sicut vult Averroes, *super* 1 *Phys.* 14;[5] aut (2) minus proprie, ubi non est admixta privatio tamen sub situ est et dimensione, sicut est in celo, ubi potius nominatur subiectum quam materia, sicut dictum est secundum Aristotelem 8 *Met.* 8[6] et Averroem super eundem locum,[7] et de hoc non sequitur quod habens materiam est generabile et corruptibile in substantia, sed tantum mutabile subiectum sibi. Tertio modo dicitur materia communissime, ubi est nec cum privatione nec sub situ, sed tantum sub esse potentiali subiicibili formae, qualiter est in rebus sempiternis secundum quod dicit Aristotelis 2 *De Gener.*, c. 13,[8] quae est qua res potest esse et non esse, et illud idem in sempiternis est ut materia—f. 223^{r}a, cf. f. 80^{v}. The first two are classified as physical matter: the third type, which is really common to things, is Avicebron's universal spiritual matter containing all lower matters; of this type something will be said in discussing the problem of matter in spiritual beings.

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[1] xii, S. 1, c. 2, f. 140^{r}a.

[2] viii, S. 1, c. 2, f. 99^{r}b.

[3] *Ibid.*, f. 99^{v}a.

[4] Cf. Bk. I, c. 71, f. 30^{v}. On f. 78^{r}b Thomas quotes Rabbi Moyses c. 98 (ii, c. 23, f. 53^{v}) as positing three matters—of the elements, of the heavens, and of the stars.

[5] i, S. 3, c. 5, f. 22^{v}b.

[6] viii, S. 1, c. 6, f. 103^{v}a.

[7] viii, S. 1, c. 6, f. 103^{v}b.

[8] Cf. *De Gen. et Corr.* ii, S. 4, c. 3, f. 175^{v}b.

FORM IN ITS STATIC ASPECT

Thomas comes now to what is, in a sense, the more important factor in things, namely, form. When we speak of the priority of matter or of form, it must be understood that there is no question of temporal priority, for matter and form must always co-exist. As Avicebron, 4, c. 10 [1] says, 'Essentia utriusque materiae et formae est debita essentia alterius', and this means that the 'esse et formae per se et materiae per se est esse in potentia, et non in effectu'—ff. 88^{v}b, 81^{r}b. The priority, then, must be either one of origin or one of dignity. On the first criterion, Augustine in *super Genesim* 1, c. 5 [2] judges matter to be prior; on the second, Averroes, *super* 2 *Phys.* 8 [3], and Aristotle, 7 *Met.* 6 [4], grant the priority to form—f. 81^{v}b. Leaving open the first possibility, Thomas finds much that is acceptable in the second opinion, since firstly, form is that which transmutes matter from potency to act, and thereby gives it being, for 'materia dat initium, forma consummationem'—a consideration which leads Gundissalinus in c. 8 [5] to remark that philosophers define being as the existence of form in matter: secondly, form gives operation to a thing: thirdly, form being the invisible element in things is the quiddity signified in definition—f. 87^{r}a and b.

Of Thomas's view of this first attribute of form, namely, the actualization of matter, we have already treated, mentioning incidentally its other significations as involved in this process, e.g. form as the good and perfection of the appetite in matter, and as the last end on account of which movement occurs—cf. ff. 72^{r}b, 82^{r}a, 235^{r}b. Here we have only to ask (*a*) whether that which gives being is itself generable and corruptible, and (*b*) whence form arises.

With regard to the first question, Thomas thinks that form is neither generable nor corruptible *per se*, but, like matter, is so only *per accidens*. As Aristotle, 7 *Met.* 13 [6], says, only the

[1] iv, c. 10, f. 233: 19.

[2] i, c. 15, *P.L.* 34: 257.

[3] ii, S. 1, c. 7, f. 25^{r}a.

[4] vii, S. 2, c. 1, f. 74^{v}a.

[5] *Op. cit.*, 24: 2.

[6] vii, S. 2, c. 7, f. 82^{v}b.

composite is generated and corrupted, for (1) that out of which a thing is made suffers transmutation; but that out of which a thing is made or generated is matter; therefore matter suffers transmutation. Now, if form alone were generated, matter would not be transmuted. Hence, since all generation implies a transmutation of matter, what is generated must be the composite and not form alone;[1] (2) the agent does not produce a thing *in aliquo sed ex aliquo*, else it would produce it *ex nihilo*. Therefore the production is formed *ex materia* and form alone is not generated unless *per accidens*; (3) What is generated is not generated from what is simple because in simple beings there is no potency. Therefore what is generated itself is not simple but composed of diverse factors, namely, matter and form; (4) If form were generated, it would be made *ex aliquo*, and therefore neither from matter nor from form alone, but from the composite, for what is generated *ex quo, non ⟨est⟩ ex materia solum*. Consequently, if form is generated, it is generated from matter and form and so on *ad infinitum*—f. 87^v a and b.

As form is not generated *per se*, so too, it is not corrupted *per se*, but only *per accidens* receding into the potency of matter and never perishing. But if form is neither generated nor corrupted, how do the new forms, which seem to occur, come into being? This brings us to our second problem, namely, the *modum exitus formae in esse*—cf. ff. 84^{r}a–6^{v}b.

Thomas tells us that Averroes in *super* 11 *Met.* 6[2], gives three theories of the way in which forms come to be—one, which supposes that forms come entirely *ab intra* during the process of generation; a second, which maintains that they come entirely *ab extra* from some donor or creator; and a third, which is midway between these two and seems to be the opinion of Aristotle.[3]

The first theory our philosopher rejects because generation, which is properly a *transmutatio in substantia*, would be reduced to alteration and the function of the agent to an extraction of forms already within the thing. The second theory he finds in

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[1] The arguments are really from Averroes, *super ibid.*, cf. vii, S. 2, c. 7, f. 83^{r}a.

[2] xii, S. 1, c. 3, f. 143^{r}a.

[3] Averroes (*loc. cit.*) gives the third opinion as: 'Agens non facit nisi compositum ex materia et forma, et hoc fit movendo materiam et transmutando eam, donec exeat de ea illud, quod est de potentia in ea, ad illam formam in actu'.

Algazel, 5 *Met.* 3,[1] where it is claimed that two things are necessary for the existence of form in matter—a celestial body to confer the aptitude and a separate substance to confer the form, in Avicenna, 9 *Met.* 5,[2] where it is asserted that terrestrial forms come from the last intelligence; and, to a lesser extent, in Avicebron, 3, c. 24,[3] and in Rabbi Moyses, c. 91.[4]

In expounding this second opinion, Thomas summarizes four of the arguments mentioned by Averroes, *super* 7 *Met.* 13,[5] (*a*) It is a proposition *per se nota* that all that is educed from potency to act is educed through the agency of some actual thing of its own genus or species. Now there are many animals and plants that are actualized without the semen, which transmits the similar genus or species; whence in their matter there is nothing of like genus or species from which they may be educed. Therefore we must suppose that there are substances giving forms to such plants and animals; (*b*) Since the substantial form in every being is something added to the complication of the elements in its mixture and to the four primary qualities, in the generation of living things without a semen and a potential existence of soul it is highly probable that the soul will be added to the *formis complexionalibus*. Now these added forms will be generated either *ex se*, and then generation will occur without a generator, or from something extrinsic, and then a giver of forms will be implied. This giver of forms holds even for things generated from the semen, because their souls are not 'a complexione' but, being educed from a potential existence in the semen, require to be actualized by something already in act; (*c*) The substantial forms of the elements are neither active nor passive; even if the four qualities of the elements were active, they could not move potential forms into actuality because they themselves are not substances. Consequently we must posit givers of forms; and (*d*) By movement actual heat and fire is generated from that which is fire in potency, but the movement does not make the substantial form of fire. Therefore the form of fire that is made by movement is from a giver of forms.

Before rejecting these arguments, Thomas turns to the third theory, that of Aristotle, which denies that the forms come entirely from a giver. The arguments for it are: (1) neither matter nor form is generated *per se,* but only the composite; (2) Since the generator and that which is generated are one in form and two in number, the generator must be composed of matter and form, and so cannot be an abstract form; (3) All generation involves a transmutation of matter; but a separate form does not transmute matter because nothing transmutes matter unless it is in matter. Therefore the material form is not produced by a separate substance; (4) In a generator there need be only a power for generating a form like to itself in a matter that possesses potentiality. This is obvious from things that are generated by nature, since in their matter there is an innate moving principle that results in an ultimate form. Artificial generation also supports this view for, lacking such an innate principle, it requires a giver of forms; and (5) All that is made comes from something agreeing with itself in name, but no immaterial form is such in respect of the material form. Consequently, no immaterial form generates a material form.

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[1] *Logica et Philosophia*, ed. Liechtenstein, Cologne 1506, Lib. I, Tract. 5, c. 3, f. 44^{v}b.

[2] ix, c. 5, f. 105^{r} and ^{v}.

[3] iii, c. 24, cf. p. 136: 3.

[4] ii, c. 13, f. 46^{r}.

[5] vii, S. 2, c. 10, f. 85^{r}b.

Aristotle's position, as Averroes says, has often been misunderstood and taken to mean that forms are produced apart from any potency by a giver of forms; but its true significance is that the composite of matter and form is generated by an agent whose function it is to move the matter, so that it may become the subject of the form that exists in it only potentially. If the form alone were generated, the action of the agent, which, Thomas remarks in passing, must always be a body with active qualities, could occur in a subject that was without form and this would mean that matter and form could exist separately. In reality that which generates the form is also that which generates the matter.

Having cleared up this misunderstanding, Thomas replies with Averroes to those who posit a giver of forms. To the first argument from putrefaction it may be said that this does not necessitate a giver of forms, because to things not generated by a semen the celestial bodies give something that can develop into the ultimate form of the generated being. In which case the necessary *convenientia* between the generator and that which is generated [1] is still preserved, though in a lesser degree than in things generated by a semen. In fact, the *convenientia* need not be one *in genere proximo aut specie specialissima* but only one of the same nature like the *convenientia* between the idea in the mind of the artist and its reproduction. These noble powers placed in matter are called divine by Aristotle in 16 *De Animal.*[1] because they give life, and they are compared by him to the intellective powers because they do not act through a corporeal instrument or, at least, not in the same way as the natural animal powers act through their proper organs. It was this consideration of a *virtus informativa* not acting through proper members that led Galen to leave open the question of the creativity of this power. The reply to the second argument follows from the above, for that which generates the vegetative and sensitive souls in spontaneous generation is not a separate form but the noble and divine powers that seem to be of the substance of these souls. Consequently, these souls need not be 'a complexione', for the necessary similarity between the generator and that which is generated has been provided. Against the third and fourth arguments there is the assertion of Aristotle that no substantial form, such as the *levitas* of fire, can generate, for only the composite fire generates fire.

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[1] On f. 32^{v}b Thomas calls this a famous principle of Aristotle.

There exists, then, no need for a giver of forms, even in putrefaction where the necessity would be greatest. Moreover, we have the consideration from Aristotle (cf. p. 61) that nature, as the intrinsic principle of movement in things, is really the same as that which is moveable, i.e. it is the incomplete form;[2] hence a form imposed from the outside is unnecessary. If there were not this incomplete form in things, there would be no basis for the distinction of active and passive potency made by Avicenna in 4 *Met.* 2[3] and Averroes in 9 *Met.* 2,[4] for Algazel's differentiation (1 *Met.* 12)[5] between remote and proximate potency, or for the view of Gundissalinus that some things come into existence by creation and others by generation or composition; above all, there would not be the very foundation of generation, viz. *productio ab eo quod est sui generis a forma.*

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[1] Cf. *De Gener. An.* i, c. 18, f. 210^{r}b f.

[2] Cf. *Met.* vii, S. 2, c. 10, f. 84^{v}a where it is said that that which of itself causes the effect is a part of the effect.

[3] iv, c. 2, f. 84^v.

[4] ix, S. 1, c. 2, f. 107^{r}a.

[5] *Op. cit.*, lib. I, tract. 1, c. 12, f. 25^v.

The actualization of these potential forms, whether in natural or artificial generation, involves besides the parent or the knowledge in the mind of the artificer more remote moving causes such as the movements of celestial bodies, which depend on the intelligences who, in their turn, are moved not by mechanical causes, but *secundum artem* which they behold in the Divine Mind. Thus the Creator may be said to produce indirectly all forms;[1] or again, He may be said to produce all, since, as the First Cause, He is in all things by His power. Because this Divine power continuously operates, Avicebron in v, c. 44[2] is right in saying that the *exitus* of forms from the first origin is continuous. Such an *exitus* cannot be, of course, any emanation of the Divine essence; rather, as Gundissalinus in *De Creatione*, c. 16[3], thinks: 'Sigillatio formae in materia, cum sit a divina sapientia, est quasi sigillatio formae in speculo, cum resultat in eo ab inspectore. Unde ⟨materia⟩ recipit formam a ⟨divina⟩ voluntate sicut speculum recipit formam ab inspectore et tamen materia non recipit essentiam eius a quo recipit formam, sicut nec sensus recipit materiam sensati cuius recipit formam. Quicquid enim agit in aliud, non agit in illud nisi per suam formam, quam imprimit in illud'.

The part played by the intelligences in the reception of form by matter from the Divine Will is not clearly expounded by Thomas. Inasmuch as the intelligences, when moved by God, move the celestial spheres to actualize potential material forms, Thomas agrees with Grosseteste's view of the potential existence of form in the angel, but on f. 88^{v}a he adopts Avicebron's statement (ii, c. 2)[4]: 'Forma naturalis particularis subsistit in forma naturali universali, et forma naturalis universalis in forma universali celesti, et forma universalis celestis in forma universali corporali, et forma universalis corporalis in forma universali spirituali'. This subsistence is further brought out by his utilization of another theory from Avicebron, namely, the theory that the angel actually receives forms from the First Cause and that in them such forms have a fuller being than in nature. Thomas relates the doctrine of Avicebron

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[1] On f. 85^{v}b we are told that God produces directly the intelligences, human souls, celestial bodies, and elements.

[2] v, c. 44, p. 330: 18.

[3] p. 41: 2.

[4] ii, c. 2, p. 27: 3.

(v, c. 17),[1] 'Intelligentiae recipiunt omnes formas a ⟨prima⟩ voluntate in qua est omnis forma plene et perfecte ⟨et⟩ quae est totum et totum in ipsa, et hanc formam recipit materia non secundum quod in virtute voluntatis est, sed secundum quod essentia eius parata erat recipere'; and on this Thomas remarks, 'Haec est summa Avencebrolis quomodo formae veniunt a superioribus ad inferiora quamvis potentiae sint in materia propter quod est descensus merito dicuntur intelligentiae formas dare inferioribus, quoniam per ipsas medias ab arte divina imprimuntur materiae modo quo dictum est'. Again on f. 88^{v}a, Avicebron (iv, c. 16) [2] is quoted as arguing, 'Omnes formae inferiores habent esse in formis superioribus, esse quidem simplicius et subtilius quod apparet in esse corporum et formarum suarum subsistentium in virtute imaginante, quae est una ex viribus animae si sint absentes a sensu, et ita est de existentia harum formarum subsistentium in intelligentia'. On f. 86^{v}a we have Thomas's own opinion, 'Formae sunt secundum esse plenius et perfectius in substantiis superioribus quam inferioribus, et quia ibi immaterialiter, hic materialiter, et iterum cum in eductione formarum duae sunt actiones, prima est influere, secunda de potentia ad actum per influentiam exire. Prima actio est nobilior et ideo quamvis utraque actio sit intelligentiae moventis et influentis convenientius denominabuntur a nobiliori et dicentur datores potius quam extractores. Amplius influere est actio earum prima et propria, extrahere est actio earum communis cum natura, qua mota ab ipsis movetur; primum enim movent et influunt, convenientior autem nominatio est omnis rei ab actione propria quam communi, et ideo convenientius determinabitur earum actio per dationem quam extractionem et dicentur datores potius quam extractores. Ex dictis haec omnia sunt manifestata propter quae ut estimo nominaverunt sapientes intelligentias istas datores potius quam eductores vel extractores'. One cannot but feel that in amplifying the theory of Grosseteste Thomas comes near to accepting the Arabian conception of the intelligences as creators of forms, though his acknowledgement of the potential existence of form in matter saves the situation.

Coming now to the natural form that is educed, we have to ask whether it is completely different from every individual substance or whether there are certain groups of substances which really have that common form which we attribute to them; and this brings us to Thomas's view of the universals problem—cf. ff. 97^{v}a–102^{r}b.

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[1] v, c. 17, p. 288: 22.

[2] iv, c. 16, p. 249: 9.

Thomas agrees with Grosseteste that the common specific form of the group, i.e. the universal, must have existence in the particular members of the group if there is to be any true knowledge with its characteristics of permanency and necessity. If it has not such an existence it, or indeed any term that we apply to more than one substance, comes to be a mere creature of thought, seeing that there is no actual common nature in the substances themselves—Aristotle, 1 *Met.*, c. 7.[1] Secondly, if there be no real common nature in things, we are restricted to a knowledge of singulars. But clearly such a knowledge varies with the mutability of the singular and therefore lacks the permanency of true knowledge, in fact, as Aristotle remarks,[2] when the singular is corrupted, this type of knowledge ceases. Moreover, Aristotle asserts that singulars, even though they be eternal, are not understood and cannot be defined; they are apprehended only by the senses and the *aestimatio*—Aristotle, 7 *Met.* 18.[3] Lastly, if the specific form or universal does not exist apart from mind, there is nothing eternal and immutable—Aristotle, 3, c. 12.[4] Consequently, Thomas concludes that if there is to be any material for real demonstrative knowledge, the universal must have an existence apart from mind as both Algazel (1 *Met.* 7)[5] and Avicenna (5 *Met.*, c. 2)[6] proclaimed.

But how is the opposite theory held by many philosophers to be reconciled with this conclusion? Even Algazel and Avicenna in the same passages as those quoted hold that the universal, as universal, has no external existence; the universal man exists only in the intellect, according to Rabbi Moyses in c. 149[7] and Aristotle in 10 *Met.* 3,[8] and the latter in 1 *De An.* 3[9] adds that the universal either is nothing or it is posterior; and were it otherwise, the universal would not be the ultimate mover of the intellect, for such a mover must be intrinsic to intellect. Similarly Averroes in *super* I *Met.* 7[1] and II *Met.* c. I and 7[2] maintains that the individual alone exists, for it alone is generated. Thomas thinks that a reconciliation is to be found in the remark of Averroes that 'universale quod est in rebus non est actu universale, sed potentia'.[3] The philosophers who believe in the independent reality of the universal have in mind a potential existence; those who admit only an existence in the intellect think of an external existence that must be actual.

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[1] Cf. i, S. 3, c. 4, f. 10^{r}a.

[2] Cf. iii, S. 2, c. 3, f. 24^{v}b.

[3] vii, S. 2, c. 17, f. 95^{r}a and *ibid.*, c. 12, f. 87^{v}b.

[4] Cf. iii, S. 2, c. 3, f. 24^{v}b.

[5] Lib. I, tract. 1, c. 7, f. 21^{v}a.

[6] Lib. V, c. 2, f. 87^{v}.

[7] *Op. cit.*, lib. III, c. 19, f. 82^{r}.

[8] Cf. x, S. 1, c. 4, f. 120^{r}a.

[9] i, S. 1, c. 1, f. 109^{v}a.

For Thomas the external potential existence of the universal avoids the difficulties raised by the Platonic theory of ideas[4] by assigning the permanent element to the transmutable individuals themselves, and, at the same time, saves the objectivity of the universal[5] without splitting up the unity of the composite into a number of separate actualities, for as Aristotle holds in II *Met.* 7,[6] 'universale . . . non est verum principium essendi ut particularis' (f. 237^{r}b). It is from such a standpoint that the universal can be regarded as the essence of the individual, and Aristotle's assertions that the essence of a circle and a circle are the same, just as the essence of soul and soul are the same (7 *Met.* 14),[7] and that the universal man and the particular man are one essentially (5 *Met.* 7)[8] can be adopted. Therefore, Averroes in *super* I *Met.* 8[9] has well said that the *mixtio intentionis* of the universal substance and the particular is stronger than that of accident and substance.

Granting, then, that humanity, for example, has such an external existence, what can be said about the existence of the various grades of universality comprised within it and disclosed when humanity is compared to other specific grades such as animality and corporeity? Do they, as genera, bear the same relation to species as matter to form? Yes, inasmuch as genus is in potency to ultimate differentiae as matter is to form it is rightly assimilated to matter, just as it is when we consider that those things which differ in genus differ in matter—cf. Aristotle, 10 *Met.* 7.[1] But genus also differs from matter because, as Averroes *super* 11 *ibid.*, c. 5 [2] points out, the *communitas* of matter exists in virtue of the privation of all forms, while that of genus exists in virtue of the presence of form. Secondly, it differs because it has its proper concept in the intellect, while matter cannot be known *per se*. In fact, as Averroes in *super* 1 *Met.* 5 [3] urges, genus must be regarded in some sense as form, for it is part of the definition, and definition which involves the necessary and permanent. Consequently, with reference to the above analogy Thomas thinks it better to say that genus is in potency, not in the absolute way in which matter is, but 'sicut forma incompleta est in potentia ad completam', for then we show that 'genus non fit aliud in essentia a forma respectu cuius est in potentia . . . ⟨et⟩ genus erit aliquo modo ibidem formae respectu cuius est, et aliquo modo non'. Aristotle, too, in 4 *Met.* 10 [4] regards genus as not other than form since it has existence only in its differentiae. Indeed, differentiae and genus express, in a sense, the same thing, for differentiae add only a mode of being to genus, as the actual to the potential, for nothing is actually in the differentiae that was not previously potentially in the genus. On the other hand, genus is not absolutely the same as form because the potential contraries in a genus are not found in the same subject (cf. Aristotle, 7 *Met.* 16),[5] and so the differentiae or species must confer some essential determination, and the essential specific difference is then said to arise from form. It is from the consideration that species is nearer to the individual or first substance as well as from the fact that while genus is divisible according to quantity and according to form, species is divisible only according to quantity, that philosophers have regarded species as more of a substance than genus; strictly speaking neither of them, as universals, can properly be called substance, because neither is indivisible or *per se* existent; they ought rather to be called 'substantialis'—ff. 104^{v}b–8^{r}a.

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[1] Cf. i, S. 3, c. 4, f. 9^{v}a.

[2] xii, S. I, c. I, f. 137^{v}b, and *ibid.*, c. 4, f. 146^{v}a.

[3] The nearest passages seem to be: 'In materia non sunt intentiones in actu sed in potentia'—*super De An.* ii, S. 4, c. I, f. 138^{v}b; and 'Communitas igitur quae intelligitur in formis communibus habet esse extra animam in potentia'—*super Met.* xii, S. I, c. 3, f. 141^{v}b.

[4] On f. 104^v he gives these as—a separate universal could not give a true definition of things, it would be only another undefinable singular, and lastly, it would have to contain actually contrary differentiae.

[5] We have seen on pp. 57, 65 that an *ens in potentia* has some degree of reality.

[6] xii, S. I, c. 4, f. 146^{r}b.

[7] vii, S. 2, c. 17, f. 87^{v}b.

[8] Cf. v, S. I, c. 6, f. 52^{r}b.

[9] i, S. 3, c. 4, f. 10^{v}a.

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[1] x, S. 2, c. 2, f. 121^{v}b.

[2] xii, S. 1, c. 3, f. 141^{v}b.

[3] i, S. 3, c. 2, f. 7^{v}b.

[4] Cf. iii, S. 2, c. 2, f. 22^{v}b f.

[5] vii, S. 2, c. 14, f. 91^{r}b.

The universal being only potentially existent in the individual, and essentially one with it, does not count for a third element in addition to matter and form. 'Intentio vel forma quae significatur nomine speciei habet dupliciter esse, unum secundum quod est appropriata et eadem singulis individuis, et aliud secundum quod est communiter in omnibus'—f. 97^{r}b. Consequently, we have not to ask how the universal becomes individualized. Certainly, it requires no addition of any other nature, and any union this potential universal might be said to have with the form of the singular could be only a union *secundum appropriationem.* Yet, if one chooses to stress the actuality of the potential universal, the problem of individuation could be raised.

To this problem three solutions are offered—ff. 98^{r}a–9^{r}b. The first, which holds that matter is the cause of individuation, seems to be adopted by Aristotle, for in 7 *Met.* 13 according to Averroes [1] it is said that the generator does not generate another unless on account of matter and that the generator and generated are one in form and two in matter. Again, in 8 *Met.* 7 [2] Aristotle maintains that form *secundum se* is not received 'magis aut minus, sicut nec numerus'. Further, according to 7 *Met.* 8,[3] all that is sensible is sensible through matter, but all sensible is particular through that by which it is sensible, i.e. through matter. Again, Aristotle in 5 *Met.* 8 [4] asserts that the one in number is said of that of which the matter is one. Lastly, in 3 *Met.* 11 [5] it is held that division according to form is a division of genus into species; according to quantity, it is the most specialized division of species into individuals, and this last type of division by quantity is really division by matter. Similarly Avicebron supports the doctrine that matter is the principle of individuation, saying in ii, c. 23 [6] that form is one and indivisible *in se* receiving partition only on account of substance, and in ii, c. 18 [7] that diversity is in form on account of matter and corporeity.

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[1] vii, S. 2, c. 8, f. 84^{r}a.

[2] viii, S. 1, c. 5, f. 102^{r}b.

[3] Cf. vii, S. 2, c. 12, f. 87^{v}a.

[4] v, S. 1, c. 6, f. 54^{r}b.

[5] This should be 'secundum Averroem', cf. iii, S. 2. c. 2, f. 24^{r}b.

[6] ii, c. 23, p. 67: 3.

[7] Not found. The doctrine is stated, however, in *ibid.* iv, c. 14, p. 242: 10 and quoted as this on f. 233^{v}b.

The second party regards form as the cause of individuation, and sometimes Aristotle seems to adopt their view as, for example, in 7 *Met.* 17[1] where he says that all distinction or division is through form because act divides, or in 4 *Met.* 3[2] where he holds that act terminates, not potency. Again, in 1 *Met.* 10[3] he seems to agree with Empedocles that things differ because of forms. The same view is found in 8 *Met.* 2.[4] Similarly Avicebron in i, c. 10[5] holds that a plurality of things is due to their forms, and in i, c. 12[6] that matter is not other than the essence of things, but that existence is due to form coming to matter; and in 4, c. 5[7] again he regards diversity as coming from form. Lastly, Averroes in *super* 1 *Ce. et Mu.*, c. 11[8] says that form is the limitation (*finitas*) of magnitude and the cause of diversity in quantity, and in *super* 2 *Met.* c. 5[9] that matter is one in number and the subject of form that divides. *Super* 7 *Met.* 13[10] asserts that the subject of form depends on form for its existence and action, and finally, in *super* 2 *Met.* 5,[11] Averroes holds that *materia prima* receives universal form and ultimately, by mediation of other forms, the individual form.

The third party believes that accidents individuate. It includes Porphyry, Boethius, and Avicenna, who says in 5 *Met.* 1[12] that the humanity of Plato is not his unless *per accidens*. To this party it must be objected that accidents cannot individuate, for they are posterior to the substantial form of the individual: as Boethius himself says in the *De Trinitate*, form alone cannot sustain accidents, for these need matter also.

To the arguments for matter as the principle of individuation Thomas objects, 'Dicit Aristoteles 1 *Phys.*, c. 13 etsi materia sit una secundum substantiam, non tamen secundum potentiam. Sunt igitur multae potentiae in materia; istae autem multae potentiae non sunt actu multae nisi per formas multas, igitur actualis multitudo potentiarum materiae . . . non est nisi per formas multas actu eas perficientes: sed a quibus est in ipsis potentiis actualis multitudo, ab eisdem est actualis numeratio seu distinctio; cum igitur hoc sit eis a formis, a formis erit distinctio et numeratio, et per consequens individuatio. Ceterum, si additum super formam speciei esset materia solum, tunc individua different tantum diversitate materiae; hoc autem falsum est, differunt enim diversitate formae. Nam sicut supradictum est, forma dividitur in universalem et particularem, et congregatum ex materia et forma particulari constituit individuum. Igitur differunt individua diversitate formae . . . Propterea, si materia est in potentia ad formam et individualitatem, et appetit eam, non operatur indivisibilitatem in forma, cum ipsa sit ens in potentia solum, et actualis indivisibilitas actu est. . . . Ceterum materia nullam formam propriam habet, alioquin non reciperet omnes, sicut supradictum est. Forma etiam speciei communis est; hoc est similiter manifestum ex antedictis: materiae autem communi additum nihil nisi commune faciet; igitur praeter formam speciei, oportet ut videtur quod aut sit forma alia propria de se particularis quae contrahat materiam communem ad singularitatem, aut materia alia signata quae contrahat formam communem ad singularitatem. Quis igitur modorum istorum est? Videtur quod primo et non secundo. Primo quod materia non est signata nisi per formam, igitur non erit causa signationis formae; secundo quod materia est in ratione recipientis et ens in potentia, et forma in ratione largientis et est ens in actu; quare illa signabilitas erit ex forma'[1]—ff. 98^{v}b–9^{r}a.

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[1] Cf. vii, S. 2, c. 15, f. 93^{v}b and 93^{r}a.

[2] Cf. *Phys.* iv, S. 1, c. 2, f. 59^{r}a f.

[3] This should be 'secundum Averroem', *Met.* i, S. 3, c. 4, f. 13^{v}b.

[4] viii, S. 1, c. 2, f. 99^{r}a.

[5] i, c. 10, p. 14: 1.

[6] i, c. 12, p. 15: 15.

[7] iv, c. 9, p. 231: 13.

[8] i, S. 7, f. 24^{r}a.

[9] Cf. ii *Phys.*, S. 2, c. 3, f. 28^{r}a.

[10] Cf. vii *Phys.*, S. 3, c. 2, f. 145^{v}a.

[11] Cf. ii *Phys.*, S. 2, c. 3, f. 28^{r}b.

[12] v, c. 1, f. 86^{v}b.

If form is the principle of individuation it will also give unity to the composite, and this it can do because it was created by the first Unity and endowed with the characteristics of being in itself indivisible but having the power to effect multitude—cf. Avicebron, iv, c. 11.[2] Yet, inasmuch as matter receives form, it, too, must make a certain contribution to the unity of the composite, though a lesser one because it is multipliable and divisible *per se*, while form is divisible only *per accidens*. 'Materia non est illud unum simplex et primum ex cuius numeratione fiunt entia in effectu . . . sed radicalis actio numerationis est ex forma'—an elucidation that explains the apparent contradiction between Avicebron's statement in iv, c. 9 [1] that all diversity is due to form and that in *ibid.*, c. 14–16 [2] to the effect that forms are multiplied by matter, and likewise exhibits the error of the contention of Averroes that an immaterial intellect cannot be multiple, because nothing existing apart from matter is individualized. Immaterial intellects, like the intelligences, can be individualized 'ab efficiente, i. e. unitate prima numerante et creante per esse, scilicet in actum essendi, quod esse, sicut dicit Dionysius, est deductio causati a sua causa et hoc est unicuique proprium et signatum quo differt ab alio numerabitur. . . . Est igitur unitas prima numerans unitatem, secunda i. e. forma per quam est principium et mensura omnium actuum.' —ff. 236^{r}b–7^{r}a.

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[1] On f. 223^{v}a, where Thomas is denying that animate forms are forms according to their complete being, he says that only forms that do actuate matter in that way have their individuation from matter. He seems to hold, then, that only the forms of elements are individuated by matter—cf. p. 96.

[2] iv, 11, p. 236: 12.

If form is that which gives individuality and unity to the composite, in the external world there will be as many forms as there are individuals, but can there be a plurality of forms in one individual? Thomas does not consciously raise the question, at least, in the completed part of his work. If from his views of privation, of active potencies, and of genera and species as incomplete forms in a being, we can conclude that he is a pluralist, our conclusion will be even more justified from his doctrine of the *forma corporeitatis*. We quote the brief passage treating of this, which will serve to show at the same time how far Thomas follows Grosseteste. Speaking of Avicebron's view (iii, c. 34) [3] of the spiritual form producing the *forma corporeitatis* when immersed *in materia sub situ et extensione*, Thomas writes, 'Forma corporea fit ex coniunctione formae spiritualis cum materia composita. Haec autem forma corporalis una differens in materia replicata facit omnes formas corporeas, et ideo dicit Aviceb. quod compositio corporis est similis compositioni numeri quae ab uno incipit et duplicata secundum tempus'. He then refers to Averroes, *super 7 Met.* 4 [4], where it is said, 'Forma corporis sensibilis est principium substantiae ultimae quae est prior aliis substantiis et quod ipsum est id quod dat aliis substantiis formas substantiales generales et corporales', and he continues: 'Ideo dicit Augustinus *De Lib.*

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[1] iv, c. 9, p. 231: 13.

[2] iv, c. 14–16, cf. p. 242: 8.

[3] iii, c. 34, p. 159: 13.

[4] vii, S. 2, c. 1, f. 75^{v}a.

Arb. 2 [1]: quod omnia corruptibilia formas habent quia numeros habent et tantum est illis esse inquantum numerosa constat esse. Haec autem forma corporalis nihil aliud est nisi lux summe inter formas corporales, luminis numerativa et multiplicativa. Hoc arguere videtur sermo Aristotelis 2 *De An.*, c. 13 [2] in quo vult quod una natura et essentia lucidi sit participata ab omni lucido superiori et inferiori quod esse non posset sicut videtur, nisi esset aliqua natura communis in qua radicaretur haec participatio. Hinc concordat Rabbi Moyses lib. 9, c. 3 [3] qui ponit lucem substantiam, et Augustinus forte ponit propter hoc secundum aliquod eius esse corpus, quam et corporalem nominat Augustinus *Contra Adversarium legis et prophetarum*, lib. 1,[4] sicut manifestabitur amplius in sermone de luce. Hoc etiam videtur ex Iohanne Damasceno cap. 21 [5] quod fecit deus lumen et pulchritudinem omnis visibilis creaturae et ex hoc secundum Augustinum secunda die forma est a materia ⟨quam⟩ appellavit deus lucem—*Genesis* 1, et propter hanc forte universalem formationem quae est ex luce dicit Ambrosius *Exameron*, lib. — c. — [6] quod lucis natura huius ⟨modi⟩ est, ut non in numero, non in mensura, non in pondere ⟨consistat⟩, ut alia, sed omnis eius ⟨in⟩ aspectu gratia sit. Hoc igitur posito, per differentem numerationem lucis in materia complebitur omnis forma corporalis. Potest igitur haec forma nobilis advenire materiae ante omnem dimensionem terminatam vel post interminatas et ante terminatas sicut distinguit Averroes in libro quem edidit *De Substantia Orbis*.[7] Nam sicut habetur ab Aristotele 4 *Phys.* 2 [8] et commentatore,[9] materiae proprium est habere dimensiones non terminatas, hoc est in potentia, terminatio vero per formam est, si priori modo adveniat, quia simplex simplici advenit propter ea in hoc toto complet: sic numeratur haec forma in materia coeli, quae tamen magis proprie subiectum dici debet sicut supra patet, et ideo esse incorruptibile, ipsa enim occupat suam materiam totam sicut manifestabitur in capitulo de caelo. Verum propter hoc non dicuntur dimensiones naturaliter in caelo esse quia dimen-

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[1] Cf. *P.L.* 32: 1251 f.

[2] ii, S. 4, c. 3, f. 139^{v}b f.

[3] Not found.

[4] Lib. i, c. 12, *P.L.* 42: 611.

[5] *De Fide Orthodoxa*, ii, c. 7, Migne, P. Gr. 94: 888.

[6] Lib. i, c. 9, *P.L.* 14: 143.

[7] Vol. 9 of Averroes's *Commentaries*, f. 3^{r}b.

[8] iv, S. 1, c. 2, f. 59^{r}b.

[9] Cf. iv, S. 1, c. 2, f. 59^{v}a.

siones sunt imperfectorum, sicut dicit Trismegistus in libro *De Sex Principiis*, c. 4.[1] Si vero adveniat materiae post dimensiones non terminatas, tunc numeratur haec forma in generabilibus et corruptibilibus, in quibus forma dividetur secundum divisionem corporis, prout dicit Averroes *super* 11 *Primae Philosophiae*, 3b,[2] cuius utriusque causa declarabitur tibi in capitulo de corruptibili et incorruptibili'—f. 237^{v}b (cf. frontispiece).

In addition to this passage, which leads one to suppose that Thomas would accept a *forma corporeitatis* as well as a *forma rationalis* in man, there is also his doctrine that all animate souls, whether rational, sensitive, or vegetative, are composed of matter and form, and are therefore not the only forms in body. Such a multiplication of forms in the physical elements, and therefore the possibility of a *forma corporeitatis*, he seems to deny—cf. p. 96. There is a further passage that suggests that Thomas even anticipates the subsidiary forms of Scotus, for on f. 84^{r}, after enumerating the various divisions of form, such as corporeal and incorporeal, substantial and accidental, he writes, 'Hiis divisionibus potest addi . . . alia quae est secundum tres modos, nam est forma complexionis quae est in membris similibus quorum divisio est secundum eamdem formam, ut caro si dividatur in carnes; est et forma compositionis utpote in membris non similibus quorum divisio non est secundum formam, sicut manus non dividitur in plures manus; et est forma quae est post complexionem quae est consequens speciem secundum medicos: duo priora membra eliciuntur ab Aristotele 1 *De Animal.*, c. 1[3] et similiter a medicis. De forma vero quae est post complexionem qua virtute operetur et quomodo forte dicetur tibi infra et habetur de ea ab Avicenna, tt. 1, sen. 2, doc. 2, summa 1, c. 15.'[4]

THE COMPOSITE

The above, then, are some of the problems raised by Thomas in the consideration of form as the source of actuality. We pass now to a brief outline of his view of the actualized composite—cf. ff. 88^{v}a–8^{v}a.

[1] Bodleian MS. no. 464, c. 4, f. 152^{r} (cf. p. 53, n. 3 *supra*).

[2] Cf. xii, S. 1, c. 2, f. 139^{v}b.

[3] Cf. *De Part. An. II*, c. 1, f. 67^{v}a f.

[4] This reference is obviously confused.

The union of matter and form is like that of a book and its characters or that of a mirror and its image. How do such entirely different factors come to be united? Aristotle and other philosophers hold that nothing that is in potency passes by itself into actuality; but it has been said that the *esse* of both form and matter is *per se esse in potentia*. Therefore, in order that something be actualized from them, a being already in act is required. Their union, then, demands a composer. Secondly, composition is an activity, and all activity obviously comes from an agent. Now where there is nothing in act, there is no agent. Consequently, matter and form *secundum se* not being in act, a composing agent must bring about their union. Thirdly, according to Gundissalinus c. 16,[1] all action is either creation, composition, or generation. The union of *materia prima* and *forma prima* cannot be creation because it is not *ex nihilo*; again, it cannot be generation for no eduction from a material medium is involved. Therefore, it must be composition, and this involves a composer. Lastly, matter and form of themselves cannot cause the composite since, as Albumasar tr. 3, diff. 2 [2] says, nothing composes itself, and the reason is that that which composes itself also divides itself. It must be concluded, then, that every composition of matter and form implies an agent that in the case of the union of first matter and first form is the Creator.

If an external agent is necessary to unite matter and form, what can be said about the intrinsic cause of their union? In the case of *materia prima* and *forma prima* no third nature could have brought about the union of such dissimilar factors for the simple reason that the first recession from unity must be binary. Indeed, the suggestion of a third nature shows a misconception of the problem by its assumption that matter and form are two things *per se* in act. If it is suggested that because of their dissimilarity matter and form must have in themselves the third cause of their union, it may be replied: 'causa est communis ex parte utriusque, nihilominus et propria ex parte singularis.' The common causes are (*a*) matter and form as the *sustinens* and *sustentatum* need one another for perfection, and (*b*) that desire for unity which is found in all things—cf. Avicebron, 5, c. 35.[1] As far as matter is concerned, the cause of union is its appetite for the goodness and perfection conferred by form, for it is only through form that matter approximates to the First Unity—*ibid.*, c. 32.[2] As far as form is concerned, the cause of union rests on the ability in form to actualize matter and to communicate itself—*ibid.* 3, c. 14.[3] In addition to these causes, there is obedience to the Creator, for the First Will penetrates all and is like a writer acting by means of form, as its instrument, on matter, as the *tabula*—*ibid.* v, c. 38.[4] If it be asked what is the cause of the separation of matter and form, we have Avicebron's solution, 'Materia, cum magis descenderit et spissabitur, tunc multiplicatur et diversificatur; et hoc facit debere esse multiplicitatem formae et diversitatem'; which is to say, the cause is the lack of subtlety and of simplicity in matter—Avicebron, v, c. 35.[5]

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[1] p. 40: 17.

[2] *Introductorium in Astronomiam*, Venice 1489, Part 1, c. 3, f. 6^v.

The above remark to the effect that matter and form have no existence apart from the composite illustrates Thomas's opinion that while *ens* may be actual or potential, *esse* must always be actual; on this ground he declares, 'ens non est esse universaliter sed esse est entis'. Consequently, he says, all creatures have existence added to their essence, for as Averroes in *super* 2 *Ce. et Mu.* 4 [6] holds, 'Esse non est id quod est, nisi in primo ubi actio est ipsa res'. But if *esse* is only a necessity for God, as Rabbi Moyses, c. 54 [7], also believes, and if, as Augustine, *De Civ. Dei* 12, c. 2 [8], and Anselm, *Monologium*, c. 3 [9], hold, some beings have more *esse* than others according as they participate in goodness, it is not to be concluded that *esse* is an accident; it is rather an essential perfection of *ens* giving to it actuality and unity, and being that which all creatures desire to possess—ff. 92^{r}b–2^{v}a.

With the production of the composite come the accidents or 'entia propter substantias', as Aristotle, 7 *Met.* 1 [10], calls them. If these are of the inseparable variety, e.g. fire and heat, there can be no question of substance preceding them in time, but if they are of the separable variety, substance might well exist apart from them—ff. 110^{r} and 111^{r}. Although accidents follow

[1] v, c. 35, p. 321: 6.

[2] v, c. 32, p. 316: 12.

[3] iii, c. 14, p. 108: 25.

[4] v, c. 38, p. 326: 23.

[5] v, c. 35, p. 321: 3.

[6] ii, S. 2, c. 2, f. 50^{v}a.

[7] i, c. 56, f. 21^{v}.

[8] xii, 2, *P.L.* 41: 350.

[9] c. 31, *P.L.* 158: 184.

[10] vii, S. 1, c. 1, f. 72^{v}b.

on the composite, they are in the composite primarily through the matter, because quantity, the mediator of all accidents, is due chiefly to matter; yet in the sense that the potency in matter for quantity and division must be actualized by form, form sometimes has been regarded as the cause of accidents: strictly speaking, form is the cause that moves matter to possess the *potentia propinqua* for accidents [1]—ff. 113^{r}b–15^{v}b.

From the establishment of the composite with its accidents, we pass to the second ground for ascribing a priority of dignity to form, namely, its power of granting operations to things [2]—cf. Aristotle, 5 *Met.* 5.[3] This it does because, as Avicebron in 3, c. 14 [4] asserts, it is of the very nature of form to communicate itself and to penetrate all which, not being as subtle as itself, opposes it—f. 87^{r}a. Indeed, it was just this diffusive power of form in matter resembling that of light in air or colour in a body, and its power of exposing the concealed nature of matter, which led Avicebron and the ancients to call it 'lumen'—f. 82^{r} and ^{v}. Form is also comparable to light because the farther it is from its source, the weaker is its action; but, unlike light, the farther it withdraws, the more manifest it is, because, as Avicebron, 5, c. 20 [5] says, the less simple and hidden is its action—ff. 87^{r}a, 235^{v}b.

Through its activity, Averroes, *super* 11 *Met.* 5,[6] tells us, form is comprehended, and becomes the quiddity signified by definition. In such a signification lies Thomas's third reason for attributing to form a priority over matter—a signification which has already been touched upon on p. 77 and upon which further remarks are to be found on p. 97.

Having outlined the exposition of *ens in generali* in Thomas, we turn now to what he calls his special Metaphysics (f. 212^{r}). Since his intended account of the inanimate order and the two lower branches of the animate world was never written, we pass at once to his psychology—a science which, like Aristotle, he regards as the noblest and at the same time most difficult of sciences—f. 212^{v}b.

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[1] Thomas has a long discussion (ff. 117^{r}a–26^{v}b) concerning the various accidents that inhere in composites, but as this does not directly concern us, I have thought it best to omit it.

[2] Cf. p. 70.

[3] Cf. v, S. 1, c. 4, f. 50^{v}a f.

[4] iii, c. 14, p. 108: 15.

[5] v, c. 20, p. 294: 20.

[6] xii, S. 1, c. 4, f. 141^{v}b.

PSYCHOLOGY

Thomas begins his treatment of psychology by asking why we suppose that such a thing as soul exists, and he finds the main reason in the nature of movement and action. We observe, he says, that certain bodies have actions, but since actions are accidents and do not exist *per se*, as Gundissalinus, *De An.* 1[1], and Avicebron, 3, c. 44[2], have demonstrated, they must involve a principle or agent. Now body cannot be this principle, for Avicebron in *ibid.*, c. 42–5[3] has shown that body is not an agent *per se*. Therefore there must be some factor in bodies that will account for the plant's power of taking in nourishment, growing and generating, for the animal's additional powers of feeling and moving, and for the further additional human powers of understanding and discoursing; this something is the soul. Were these powers in a body inasmuch as it is body, they would be the same for all beings, inanimate and animate. Moreover, neither the matter nor the form of a body could be the principle of action; for the first is passive, and the second as a mover could not have the distinction that is required between every mover and the thing moved—cf. Aristotle, 8 *Phys.*, c. 7.[4] A form, e.g. fire, cannot affect the matter of which it is the act but only the matter of another being that has not its qualities. Again, if a body were moved by one of its parts, something would have to move that part and so on *ad infinitum*. Therefore, the movement in a body cannot be explained without positing a non-corporeal principle.

Further, a consideration of the various grades of beings will show that their actions cannot be accounted for by body alone. The *anima vegetabilis*, the lowest grade, has the faculty of nourishing itself; but, according to Avicebron in 3, c. 47,[5] this means moving the parts from the centre to the extreme, so that the action of the vegetative faculty is the cause of the body in its periphery. A movement of nature, however, is only *ad unam partem*. Therefore, the action of the vegetative faculty involves something that is not body. Secondly, how is it that elements, which are bodies and therefore of themselves quiescent and requiring a mover, become assimilated in digestion? We know from Avicenna in 2 *De An.*, c. 1[1] that it is not in the nature of elements and contrary bodies to be joined *per se*; therefore we must conclude that their assimilation implies a soul. The intermediate grade of being, namely, the sensitive soul, also requires something apart from body to explain its power of movement. A mover must possess that in respect of which the moveable is still in potency; hence, if the moveable is in potency regarding a place, the mover will actually possess that place; but clearly a body that is a mover cannot possess different places by occupation (*per circumscriptionem*). Consequently, such a mover cannot be a body, but must be the sensitive soul, which moves other things without itself being moved, except by the desirable. Moreover, if movement were not originated by the will, and therefore by the soul, all bodies would move. Finally, the highest grade of soul, the rational, can be deduced from a consideration of the adaptations of the body to many diverse operations. Such adaptations show that body is essentially an instrument and does not exist *propter se*. Further, neither the complex and contradictory actions of will nor the acquisition of knowledge would be possible for body with its corporeal nature—ff. 213^{v}a–14^{v}a.

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[1] Through the kindness of Professor G. Furlani of Florence, who has permitted me to see the proofs of his delayed edition of this work, I have been able to verify this assertion.

[2] iii, c. 44, p. 176: 25.

[3] iii, c. 42–5, pp. 174–81.

[4] viii, S. 2, c. 2, f. 165^{v}a.

[5] iii, c. 47, p. 184: 20.

Soul, then, is something that is not synonymous with body; but is this something a substance or an accident? If it is a principle of action, it must be a substance because no accident is *per se* an agent. Indeed, souls must be substances, for, according to Averroes, *super* 9 *Met.*, c. 4,[2] actions are diversified according to essences. Moreover, all agents have more actuality than that which is moved. Consequently the soul, being a mover and a commander, will have an actuality inconsistent with the dependent being of accidents, which follow matter. Again, the subject of accidents can remain apart from its accidents, but the body as the subject of soul does not remain the same when the soul has receded, but acquires a new form and other accidents. Therefore, the soul is not an accident. That it must be a substance is also deducible from Aristotle's statement in 5 *Met.* 9[3] that it is one of the signs of substance that it should be the cause of the essence of a thing and that

[1] ii, c. 1, f. 6^{v}a.

[2] ix, S. 1, c. 4, f. 109^{r}a.

[3] v, S. 1, c. 8, f. 55^{v}b.

it should not arise out of a subject. The former applies to soul because soul is that which makes the body to be truly a body, and the latter equally applies because Aristotle tells us that the intellect comes from without—ff. 214^{v}b–15^{v}b.

Having decided that the soul is not an accident, Thomas returns to the impossibility of it being a corporeal substance. Have not Aristotle in 1 *De An.*, c. 19 [1] and Chalcidius in his *Commentary on the Timaeus* [2] shown that even the *anima vegetativa* cannot be a body because one body cannot wholly penetrate another without two bodies occupying the same place? Further, a body could not enter into another body without dividing it or else being itself divided; but neither of these alternatives apply to the soul whose characteristic it is to conserve body in being. Again, every body joined to another is continuous, contiguous, or mixed with it, but in none of these methods is the soul joined to body. Moreover, if the soul is a body, it is either an element or a combination of elements. Now these produce only a *motus rectus* and move body merely in one direction; but the plant growth occurs in all parts. Therefore even the vegetative soul is not a body. Similarly, the soul cannot be a celestial body because this produces only a circular movement. Body, as the *Liber De Differentia Spiritus et Animae* [3] recognizes, is the object of the senses. The soul, however, is not the object of the senses. Therefore it cannot be body. Supposing it were a body, it would have to be either inanimate or animate; but obviously it is not the former, and if it is an animate body, we can ask by what is it animated and so on, *ad infinitum*. Again, if the soul were a body, then a body would be the act and perfection of body; but this is contrary to the statement of Aristotle in 2 *De An.*, c. 4 [4] that runs, 'Actus et perfectio substantiae non est id cuius est actus et perfectio, nec e contrario'. Besides, a body could not be the act or form of a body because body implies composition, and therefore cannot be the form of anything. As Aristotle, according to Averroes, 2 *De An.* 2 [5] remarks, no body having life is a living body 'secundum quod est corpus simpliciter, sed secundum quod est tale corpus', but a body is not *tale corpus* unless through some principle that is not corporeal, else all bodies would be living. Consequently, the soul is not a body.

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[1] Cf. i, S. 3, c. 7, f. 125^{r}b f.

[2] Ed. J. Wrobel, Leipsig 1876, cf. § 221, p. 257.

[3] A work by Costa-ben-Luca, cf. C. S. Barach's edition of the translation by Johannes Hispalensis, Innsbruck 1878, p. 131.

[4] This should be 'secundum Averroem', *super* ii *De An.*, S. 1, c. 2, f. 131^{v}a.

[5] ii, S. 1, c. 1, f. 127^{r}a.

Thomas now passes to the numerous arguments of Claudianus (Mamertus) in the *De Anima*.[1] The chief of these are: (*a*) the perfection of the Creator implies a possibility of creating something other than the corporeal, especially if there is to be any image of God among creatures; (*b*) if there is *vita vivificans et non vivificata*, and *vivificata et non vivificans*, there will be some intermediate substance possessing both qualities, and this being is the soul; (*c*) if there are visible bodies and invisible bodies, such as voice, there is likely to be something that is both invisible and incorporeal. Finally, as Avicenna (1 *De An.*, c. —) [2] points out, if the soul were a body, it would weaken with the body; but, on the contrary, when the body begins to weaken at about the fortieth year, the operations of the intellect become more vigorous—ff. 217^{r}a–19^{r}b.

The soul, then, is incorporeal, and will be simple inasmuch as it lacks corporeal matter; but is it absolutely simple, or does it contain spiritual matter? Thomas believes that the second alternative must be adopted since matter is synonymous with the potentiality for existence and change found in every creature.[3] Avicenna in 5 *De An.* 2 [4] asserts that the power of receiving is not found in the essence of form, and Boethius, too, in *De Trin.*[5] thinks that the form that is without matter cannot be a subject; we know, however, that the intellective faculty is such a subject because it receives intelligible forms. Therefore the soul cannot be a pure form. Secondly, if a simple form could be receptive, it would not receive successively *secundum ordinem et compositum*, as may be gathered from Avicenna, 5 *De An.* 6[1]; but the intellect does receive forms in this way, for it composes and divides the forms of things. Consequently, it is not a simple form. Thirdly, wherever there is possibility, there also is matter, for possibility implies imperfection and privation, the concomitants of matter. Therefore, since the soul has possibility, it cannot be that pure actuality that is equivalent to pure form. Fourthly, Boethius in *De Trin.*[2] regards every simple being as identical with that which it possesses; but, as Avicenna in 5 *De An.* 1[3] contends, this cannot be said of the soul because it has powers. Therefore it is not simple. Fifthly, a pure form is not the subject of accidents, for Averroes in *super* 8 *Phys.*[4] declares every accident to be in a subject by reason of its matter; but the soul is a subject of accidents because it passes from ignorance to knowledge. Therefore it must have matter. This can also be gathered from a second passage in Averroes, *super* 2 *De An.*, c. 1[5] where he demonstrates that all composition of substance and accidents is preceded by a composition of matter and form. Sixthly, all that are one in species and many in number have matter, according to Aristotle, *Met.* 10, c. 12;[6] but Avicenna in 5 *De An.*, c. 3[7] shows that these conditions are true for the soul. Therefore the soul has matter.[8] Seventhly, only the First Agent acts *per se totum*. The soul does not act in this manner, because its action is not its substance. Therefore the soul has something through which it acts and something which does not act; and this means that it is composite. Eighthly, everything whose being is not exhausted as the act of another has in itself composition, because it has something over and above that which makes it act. The soul is such a being, for while it is the act of body, it itself is neither a body nor a *virtus* in body nor dependent on body. Therefore it is composite. Ninthly, Aristotle in 3 *De An.*[1] argues that in all nature we find matter and an active factor and that this holds for the intellect. Here Thomas gives a few short arguments that are mainly variations of number three, e.g. Augustine in *De Trin.* 6, c. 6[2] and *De Civ. Dei*, 11, c. 10[3] maintains that only the simple is immutable; but the soul is mutable because it experiences good and evil, knowledge and ignorance; therefore it must be composite.[4]

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[1] Cf. *De Statu Animae*, i, c. 4, *P.L.* 53: 706 f.

[2] Cf. v, c. 2, f. 23^{v}b.

[3] The following authorities as well as those on p. 103 are interesting in view of St. Thomas's remark in Sent. ii, d. 3, q. 1, a. 1, 'Respondeo dicendum quod circa hanc materiam, tres sunt positiones. Quidam enim dicunt quod in omni substantia creata est materia et quia omnium est materia una. Et huius positionis auctor est Avicebron qui fecit librum fons vitae, quem multi sequuntur. Secunda positio est quod materia non est in substantiis incorporeis, sed tantum est in omnibus corporibus etiam una, et haec est positio Avicennae. Tertia positio est quod corpora coelestia et elementa non communicant in materia, et haec est positio Averrois et Rabbi Moysis et videtur magis dictis Aristotelis convenire.'

There is, of course, the possibility that Avicebron may have focussed the problem for Thomas of York, but our philosopher believes the theory to be in Augustine, Boethius, John Damascene, and Aristotle—cf. pp. 103 and 37, n. 1 *supra*.

[4] v, c. 2, f. 22^{v}b and c. 6, f. 25^{v}b.

[5] c. 2, *P.L.* 64: 1250.

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[1] v, c. 6, f. 26^{r}a.

[2] c. 2, *P.L.* 64: 1250.

[3] v, c. 6, f. 22^{r}b.

[4] Not found.

[5] ii, S. 1, c. 1, f. 127^{r}b.

[6] Cf. x, S. 2, c. 8, f. 128^{v}a.

[7] v. c. 3, f. 24^{r}.

[8] Here Thomas mentions that the view that all souls are one in number was held by Aristotle and Averroes, and adds that it is contrary to Catholic and philosophical truth.

Such are the reasons given by Thomas for thinking that matter exists in the soul. He now considers the objections against his view, the chief of which are: (1) Augustine in *Contra Faustum*, lib. 20[5] has said that matter *per se* is unintelligible. Hence what has matter is unintelligible. But we know that the soul is intelligible; therefore it cannot have matter; (2) Nothing is understood unless abstracted from matter. But since the soul *per se* is understood, it must be abstracted from matter; (3) Matter is that by which a thing has potency to being or non-being, according to Aristotle in 7 *Met.*, c. 13.[6] Therefore what has matter is generable and corruptible: but the soul is not generable or corruptible; (4) If the intellect had matter, it could not receive material forms since a receiver must lack that which it receives; (5) Aristotle, according to the exposition of Averroes in *super* 11 *Met.*, c. 6,[7] says that though some powers of the soul, e.g. vegetative and sensitive, have being in matter, the intellective power, which remains after the corruption of the composite, is a form absolutely immaterial; (6) If the soul is incorporeal, it is also immaterial; (7) The nobler a form, the simpler it is, for Averroes in *super* 11 *Met.*, c. 14[8] lays it down that 'nobilitas substantiae est in paucitate compositionis', and so even the form of a stone, inasmuch as it is a form, has no matter. Therefore, if the soul is the form of a body and is nobler than the form of a stone, it too must be simple and without matter; (8) If a form had matter in addition to its subject, it would not be the form of its subject according to its complete being; since, however, there is no question about the forms of plants and animals being the forms of their subjects according to their complete being, seeing that they depend on body, much more ought the nobler rational soul to be a form according to its complete being; (9) If the soul has matter, it may be asked whether it is created with the soul or not. If it is, then there are as many first matters as souls, and souls have no connexion with one another—a conclusion out of harmony with the wisdom of the Hebrew writer who says that He who liveth from eternity created all alike. If, on the other hand, the matter of souls is not created, then souls are not produced entirely from nothing.

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[1] iii, S. 1, c. 3, f. 169^{v}a. On f. 80^{r}a Aristotle (cf. *Met.* xii, c. 9, 1075 a 3 or xii, S. 2, c. 4, f. 157^{v}b) and Averroes, *super* 11 *Met.* 14 (xii, S. 2, c. 4, f. 157^{v}b) are quoted as saying that man is not free from matter, because his intellect and its object of thought are not simply the same.

[2] vi, c. 6, *P.L.* 42: 929.

[3] ii, c. 10, *P.L.* 41: 325.

[4] On f. 78^{r}b he remarks that Augustine, *Super Genesim*, 7, c. 2 (cf. vii, c. 5 f. *P.L.* 34: 358 f.) and 2, c. 3 (cf. i, 1, *P.L.* 34: 247) divides matter into corporeal and spiritual, thereby insinuating that the latter is in spiritual substances such as souls.

[5] Lib. 20, c. 15, *P.L.* 42: 380.

[6] vii, S. 2, c. 6, f. 81^{r}b.

[7] xii, S. 1, c. 3, f. 142^{v}a.

[8] xii, S. 2, c. 4. f. 158^{r}a.

We come now to Thomas's reply to these objections. The third, fourth, and fifth objections may be ruled out at once because they suppose that 'matter' is used in either of the first two senses named above (cf. p. 69): such a use is impossible because spiritual substances have neither privation, which is the principle of generation and corruption, nor situation and dimension—for which reasons they are rightly called forms. It is only matter in the sense of potency for existence and change which is posited in spiritual beings, since as Algazel in 5 *Met.* 1 [1] says, 'Vere quod est praeter primum habet esse possibile, quod est simile materiae, et esse in effectu quod est simile formae'. And as Averroes in *super* 3 *De An.* 6 [2] writes, 'Quemadmodum sensibile esse dividitur in formam et materiam, sic intelligibile esse debet dividi in consimilia habens (hiis?) duobus, scilicet in aliquod simile formae et in aliquod simile materiae, et hoc necesse esse in omni intelligibili, aliter non esset multitudo in formis abstractis'. Likewise, Avicenna believes that no nature other than the First is simple. Therefore the composition of creatures is best taken to be one of matter and form when we understand 'matter' in the above sense. As regards the first objection its major must be accepted, for even the matter of bodies cannot be understood *per se*, but only *per formam et per*

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[1] *Op. cit.*, tract 5, c. 5, f. 44^{r}a.

[2] Cf. iii, S. 1, c. 2, f. 168^{v} and *ibid.*, c. 3, f. 169^{v}a.

mutationem, yet this does not make bodies unintelligible. Further, while matter may be unintelligible to us, it is not so to the First Intellect because as Avicebron in 2, c. 8 [1] says *materia prima* has its own essence and therefore must have its idea in the First Intellect. To the second objection it may be answered that abstraction need only be from sensible and not from intelligible matter—cf. Averroes, *super* 6 *Met.* 2.[2] To the sixth objection it may be replied that the division of substance into corporeal and incorporeal is not convertible into material and immaterial, and to the seventh that its assumption applies only to forms of the same genus. The intellect, as an abstract form independent of that of which it is the form, is absolutely different from the form of a stone which is dependent on its matter. Moreover, if lack of composition meant greater nobility, accidents ought to be nobler than substance. To the eighth it must be retorted that the forms of plants and animals are not forms according to their complete being in the same way as the forms of elements are, for while every part of water is water, not every part of a plant is a plant. Neither the plant nor the animal form is a 'forma quae est solum esse materiae, sed aliquid praeter hoc quod est actus materiae, scilicet substantia composita ex materia et forma'. Again, if these forms move matter, they will have something that acts and something that does not act, because only the First Substance acts *per se totum*. Therefore these forms are composed. 'Manifestum est quod anima et vegetativa et sensitiva est aliquid in se actu ens praeter hoc quod est actus corporis.' Moreover, every form that is a form according to its complete being has its individuation from matter. Consequently, the soul cannot be such a form; rather, it is related to the body as a pilot to the ship [3]—ff. 221^{v}a–3^{v}b.

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[1] ii, c. 8, p. 38: 4.

[2] vi, S. 1, c. 1, f. 69^{r}a.

[3] Such a view has been anticipated on p. 85. The soul, however, does not require a third nature to unite it to the body, for, as Averroes, *super* 8 *Met.* 12 (viii, S. 1, c. 8, f. 106^{r}a) pointed out, such a theory is based on the erroneous assumption that the body and the soul can be two separately existing actualities—f. 89^{r}b.

On f. 78^{r} Thomas quotes Avicenna, ii, *Met.* 3 (*ibid.*, f. 76^{r}b) on the difference between *materia simplex* and *materia composita*: 'Prima est quod non est composita ex materia et forma ut est materia ultima, materia autem composita est illa quae est ex materia et forma sicut corpus respectu animae.' A marginal note of the folio runs—'Ecce quod in homine etiam aliam formam substantialem praeter animam secundum Avicennam.'

With this discussion of the substantial being of the soul the psychological section of our manuscript ends abruptly. I propose, however, to set forth Thomas's theory of knowledge as gathered from remarks scattered throughout his discussion of other problems.

Since matter itself is unknowable, it remains for the form of a corporeal being to be the object of knowledge—a most appropriate office seeing that the form not only confers actuality but, as opposed to matter, is transmuted only *accidentaliter*, i.e. through matter or through the transmutation of the composite; consequently, it can give the permanency and necessity that is essential for knowledge—ff. 97^{v}a and 235^{r}b. According to Averroes in *super* 11 *Met.* 5,[1] it is on account of its activity that form can be this object of knowledge, and Rabbi Moyses also in c. 98[2] states that diversity of form is known through diversity of activity—ff. 87^{v}b, 88^{r}b, 235^{v}b.

Thomas assumes, then, that there can be some correspondence between the objective and the subjective worlds; in fact, on f. 237^{r}b he quotes Aristotle's contention (8 *Met.* 12)[3] that 'eadem forma quae secundum hoc ⟨intelligibile⟩ esse est universale, secundum aliud esse, ut est res et natura, est pars rei et causa essentiae eius, quoniam etsi separetur ab hiis quorum est forma secundum definitionem, non tamen secundum esse'. Therefore, the form that exists in the sensible world giving actuality, unity, and action, becomes the exemplar[4] or universal in the soul, and so we are concerned with one form under two different modes of being. The universal as a principle of being is in matter; as a principle of knowing it is in the soul (f. 101^{r}a). The correspondence, then, will lie between the exemplar in the soul and the potential universal which, we have seen, exists in the individual. The exemplar could not correspond to the particular form of the individual, for that, on account of its inseparability from the matter of the individual, is always subject to change, and therefore cannot provide the necessary and perpetual elements involved in knowledge. Indeed, Aristotle has said that the singular is apprehended only for practical purposes.[1]

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[1] xii, S. 1, c. 4, f. 141^{v}b.

[2] Not found.

[3] Not found.

[4] Thomas often uses this term rather than 'form', for on f. 81^{v} he tells us that Avicebron in iv, c. 20 (*ibid.*, p. 255:15) held that 'forma' was properly used only for forms existing in matter (and not for the First Cause), and that Seneca, *Ep.* 67 (cf. Ep. no. 65 of the 1899 Teubner edition) regarded it as improperly applied to 'idos'.

We come into contact with this potential universal by means of the phantasm—a *sine qua non* due to the weakness of our intellect and to the impossibility of a proportion or an identity between the spiritual intellect as a knower and the corporeal body as known—cf. Avicebron, 5, c. 15.[2] This phantasm, according to the author of the *De Universo* (i, c. 22),[3] is like an image in a mirror which we look at without recognizing it as an image of Socrates but only as of an indefinite man. From the material conditions under which the phantasm exists the intellect has the power to abstract the potential universal,[4] for, 'nec ibi est sine materia, quamvis sine materia sensibili, secundum quod habetur ab Aristotele, 3 *De An.* 14'.[5] The result is, strictly speaking, not the actualized universal, but rather the specific form considered in itself apart from universality or particularity. Only when mind consciously predicates this indifferent species of the many does it become an actualized universal—a theory with which Avicenna in 5 *Met.*, c. 11 [6] and Averroes in *super* 3 *De An.* 6 [7] agree when they ascribe to the universal three modes of being: (*a*) a potential and inseparable existence in the individual, (*b*) an existence in the mind that is neither singular nor plural, and (*c*) an existence in mind when considered in relation to the many—ff. 100^{v}b, 103^{r}a–4^{r}a.

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[1] On f. 104^{v}a Thomas remarks that in the beginning of the *Post. Anal.* (i, S. 1, c. 2, f. 132^{r}a), Aristotle regards the singular as better known than the universal, while in the beginning of the *Physics* (i, S. 1, c. 3, f. 4^{v}b) he seems to hold the contrary view. He explains this by supposing that in the former Aristotle is thinking of singulars as 'individua composita in genere entis, haec enim sunt notiora universalibus, quia non cadit universale in nostra apprehensione nisi per formam singularem prius acceptam in sensu'. In the beginning of the *Physics*, as the Commentator shows (i, S. 1, c. 3, f. 4^{v}b), Aristotle thinks of individuals as 'ultimas species et universalia minus communia quae sunt nobis notiora, prius enim accipitur in nostra apprehensione magis commune quam minus commune, ut corpus quam animalis et animalis quam homo'.

[2] v, c. 15, p. 285: 7.

[3] The reference is to the *De Universo* of William of Auvergne—cf. *Opera Omnia*, Paris 1674, vol. i, Pt. II, S. 1, c. 15, p. 822.

[4] Does the soul abstract the complete universal from the first individual of a species with which it happens to come into contact? Thomas suggests a positive reply by his remark on f. 103^{r}b: 'Cum intellexerit anima unum individuum et post intelligit aliud et sic communiter non fit alia depictio nova in anima, nec per aliam formam intelligit hoc individuum et illud sicut dicit Algazel 1 *Met.* 7 (Bk. I, tt. 1, c. 7, f. 21^{v}b) . . . enim homines non differunt in humanitate: unde nec augetur intentio vel depictio per intellectionem plurium individuorum unius speciei'.

[5] Cf. iii, S. 1, c. 5, f. 180^{v}a.

[6] v, c. 11, ff. 87^{r}a–^{v}a.

[7] Not found.

Let us return to the second mode of the existence of the universal or what, for the sake of clearness, had better be called the existence of the *species intelligibilis* in the mind—an existence concerning which Avicenna in 5 *Met.* 1 [1] remarks, 'Sic nec dicit universale, nec particulare, nec est multa, nec est unum, nec existens in singularibus, nec in anima, nec est species, nec est commune, nec proprium, nec individuum.' Is this *species intelligibilis* a pure form without matter? No, for, as Aristotle according to Averroes 1 *Met.* 4 [2] says, the species of man is not his form alone, but also matter—f. 102^{v}b; and further, if the species were not an aggregate of universal matter and form, it could not be defined, since what is defined is an aggregate—f. 107^{v}b. Moreover, this must be what Aristotle thinks of when in 8 *Met.* 6 [3] he asserts that definition is composed of matter and form, for we have heard that the sense particular is indefinable. Only as considered in relation to the many is this species a pure form, for according to the same philosopher 8 *Met.* 14 [4]—'formae universales secundum quod universales, non habent materiam sensibilem aut intelligibilem . . . et per hoc non habent definitiones, quia definitiones sunt compositorum'—f. 102^{v}a. Consequently, from the humanity inseparably linked to corporeal matter in external singulars we can arrive ultimately at a pure universal abstracted from all materiality and having a maximum of applicability, in fact, comprehending an infinite number of things. With Avicenna in 5 *Met.* 1 [5] we can say, 'Forma quae dicitur universalis quamvis respectu individuorum sit universalis, tamen respectu animae in qua imprimitur, est singularis et individualis quia ipsa est una ex formis quae sunt in intellectu . . ., et utroque modo est in anima, licet differenter, nec est contrarietas ut sit una essentia et accidat ei communio respectu multitudinum, nam communio non est nisi in relatione tantum. . . . Secundum esse universalia sunt ingenerabilia et incorruptibilia . . . secundum esse universale quod est in relatione ad multa sunt generabilia et corruptibilia, sicut dicit Averroes *super* 3 *De An.* 6 [1]—ff. 102ᵛa–4ʳa.

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[1] Cf. v, c. 11, f. 87^{r}a.

[2] i, S. 2, c. 5, f. 5^{v}a.

[3] viii, S. 1, c. 4, f. 102^{r}a.

[4] This should be 'secundum Averroem', cf. viii, S. 1, c. 8, f. 105^{v}b.

[5] v, c. 1, f. 87^{r}b.

In addition to this knowledge by universals derived through the senses, we have a second type due to Divine illumination. 'Duplex est via cognoscendi, quarum una est ab inferiori, hoc est per viam sensus, cuius solus assertor, sicut videtur, fuit Aristoteles, cum dicit quod omnis cognitio est a sensu: nos autem, secundum sapientiam christianorum et philosophorum, scimus esse aliam, videlicet a superiori et non a sensu, hoc est per viam influentiae et receptionis a Primo, et haec cognitio est certior alia, et haec est via quae currit ab idea in ideam, quae non est per doctrinam exteriorem, sed tantum illuminationem interiorem, sicut ostenditur tibi infra'—f. 36ʳb. In this light, which he tells us on f. 206ᵛ is none other than the formal essence of the soul made in the image of God, all knowable species exist like the colours in material light, or, according to St. John Chrysostom, as the species and forms produced on earth exist in the sun. Aristotle's failure to treat of this light leads Thomas to observe (f. 213ʳb), 'scientia de anima non est perfecte tradita in libro quem edidit Aristoteles *De Anima*, in quo non tractat de anima nisi secundum quod anima'—meaning thereby that Aristotle has ignored the soul as an image of God.

This Augustinian doctrine of illumination unfortunately is not developed by our philosopher, though his moderate interpretation of it is brought out by his statement on f. 198ʳb that just as natural forms come *per latitationem aut per dationem aut medio modo*, so species in the intellect are derived entirely from the outside, or are entirely innate, or derived partly *ab extra* and partly *ab intra*: the first is Aristotle's view, the second is that of Augustine, and the third the usual Christian interpretation.

Concerning our knowledge of God, a question involved in the theory of Divine illumination, Thomas would seem to reject any intuitive apprehension in favour of an innate idea due to the fact that the soul is an image of God. This innate idea he finds supported by Cicero's *De Nat. Deorum*, 2, c. 2, 4 [2] and by the common consent of all peoples. In addition to this, he holds that we can arrive at the existence of God in an *a posteriori* manner by a consideration of the nature of creatures with their caused, mutable, and imperfect being, and of the wise government of the world. Moreover, we have for our assistance the argument from the *Proslogium* [1] of Anselm to the effect that the greatest conceivable being must exist *in effectu* as well as in the intellect, and also that from Augustine's *De Lib. Arb.* 2 [2] concerning the eternal truth of 2+3=5 presupposing an absolute truth of which it is the effect.

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[1] Not found.

[2] ii, c. 4, Teubner edition 1878, p. 51.

Besides the existence of God, the natural reason can arrive at the unity of His substance,[3] for, as Plato in *Tim.* 1 [4] says, the world is one and what is made bears a likeness to its maker: and again, if there were two gods, they would both be instances of a species. Similarly, Aristotle in 11 *Met.* 11 [5] holds that there must be one principle always acting in the same way if we are to account for the uniform change in the universe [6]—ff. 9^v–11^r.

ANGELOLOGY

It is perhaps in Thomas's doctrine of the intelligences that we can realize most fully his fondness for Avicebron, for the proofs of their existence are frankly acknowledged to be borrowed from the Jewish philosopher. If there is a mover that is not moved, Thomas argues (from Avicebron 3, c. 3 [7]), and something moved without itself being a mover, there will be an intermediate being that is both moved and a mover. Secondly, if there is a first intellect that imparts without receiving, and an opposite one, such as the human intellect, that receives without imparting, there will be an intermediate one that both receives and imparts. Thirdly, if there is a Divine Intellect not receiving in any way, and a human intellect receiving from both the superior and inferior, there will be an intermediate angelic intellect receiving from the superior but not from inferior beings.

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[1] Cf. ch. 2 f., *P.L.* 158: 227.

[2] ii, c. 8, *P.L.* 32: 1251 f. and *ibid.* c. 12, *P.L.* 32: 1259.

[3] On f. 14^r and ^{v} Thomas relates Augustine's opinion that the plurality of Divine Persons was foreshadowed in Plato, Porphyry, Hermes Trismegistus, and Plotinus, and to these he adds Aristotle and Averroes.

[4] *Timaeus*, 31.

[5] Cf. xii, S. 2, c. 1, f. 148^vb.

[6] For further characteristics of God cf. p. 106 f.

[7] iii, c. 4, p. 82: 19.

In addition to these arguments from the hierarchy of beings, Thomas has others arising out of a consideration of the properties of the First Cause and of those of corporeal substance. The following are the most important: (*a*) Avicebron in 3, c. 1[1] holds that the more remote two things are, the less is their agreement. The First Cause and the corporeal, being related as the simple to the compound or as the one to the many, have a minimum of agreement. Therefore if Algazel in 1 *Met.*, c. 11[2] and Avicenna in 10 *Met.*, c. 1[3] are right in holding that all things proceed from the First Being according to order, there must be some intermediate beings to reconcile the extremes. (*b*) The major and minor worlds are alike; but in the minor, the soul, as the particular mover, is not joined to its body without a medium of animal spirit.[4] Therefore, the First Universal Mover or Creator must be united to the major world by an intermediate nature—cf. Avicebron, 3, c. 2 and c. 51.[5] (*c*) The First Cause can produce only what is like itself. Consequently, there is need for something between Him and corporeal beings: the angel well satisfies this need, for being an incorporeal form, he is the nearest approach to a simple form. (*d*) Speaking of the successive *exitus* of number from unity, Avicebron in 3, c. 2[6] remarks that the more remote the *exitus* is, the more multiplied it is; so too, bodies, as the more remote creatures, have an 'aggregationem numeralis duplicitatis', while the less multiplied and the less remote are only 'substantiae aggregatae ex proportione duplicitatis'. (*e*) Between a being that is in time according to substance and action, and one that is in eternity according to its complete disposition, there must be an intermediate one whose substance falls in eternity or rather above time and whose action is in time—cf. Avicebron, 3, c. 2, and 5.[7]

A third group of arguments arises from a consideration of corporeal activity. If the simplest and infinite being moved bodily things immediately, it would be joined to body and therefore would be divisible according to place and time—cf. Avicebron, 3, c. 2;[8] and besides, as Aristotle in 8 *Phys.*, c. 40[9] says, if an infinite potency were to move a finite body, it would move it in an instant. Therefore the intelligences must be posited as movers of bodies.

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[1] iii, c. 1, p. 74: 7.

[2] Cf. i, tract 1, c. 11, f. 24^{v}b.

[3] x, c. 1, f. 107^{v}b.

[4] Cf. p. 96, n. 3 *supra*.

[5] iii, c. 2, p. 77: 24, and iii, c. 51, p. 194: 1.

[6] iii, c. 2, p. 77: 7.

[7] iii, c. 3, p. 78: 24 and iii, c. 5, p. 88: 18.

[8] iii, c. 3, p. 79: 7.

[9] viii, S. 4, c. 1, f. 192^{v}b.

The above arguments can be supported by a consideration of nature. If in nature there is no vacuum, there must be substances unitable *secundum motum* only and not *secundum essentiam*, that is, as movers and not as acts of body. Likewise the perfection of the universe requires that there should be a form joined to body *secundum esse* but *non secundum essentiam*, for the *forma corporeitatis* is joined to body *secundum esse et essentiam*. In addition to these arguments, which are suggested by Alfarabius's *super De Causis* and by Apuleius, we have the authority of Aristotle for the existence of angels, though Aristotle limits their number to that of the orbs and does not allow them any mixture of potency—ff. 224^{r}b–8^{v}b.

For the opinion of Thomas on the possibility of matter in the intelligences, we have to rely on his treatment of the existence of matter in all creatures (ff. 78^{v}a–80^{v}b). There we find again some of the arguments used for the existence of matter in the soul (cf. p. 92 f.) as, for example, those from Augustine's *De Trin.* 6, c. 6 and *De Civ. Dei*, 11, c. 10 to the effect that the mutability of creatures proves that they are not simple. The third argument appears as: Avicebron in 5, c. 24 [1] shows that all mutable things have possibility; but, according to Rabbi Moyses, c. 52,[2] possibility is found only in matter; therefore all creatures being mutable have matter; and also as: Averroes in *super* 4 *Met.* 16 [3] claims that all becoming implies non-being and being. Consequently, wherever there is becoming there must be matter, for matter is the nexus between being and non-being. The fourth argument occurs as: Aristotle, according to Averroes in 2 *Met.* 8,[4] holds that duality exists only in a thing because of matter, but according to the same in *super* 11 *Met.*, c. 14 [5] abstract intelligences have duality *propter alietatem intellectus et intellecti*. Argument five is revised as: Augustine in *De Trin.* 5, c. 3 [6] asserts that all beings other than God have accidents. Now Boethius in *De Trin.*[7] has said that accidents exist in virtue of matter. Therefore all creatures have matter. The sixth is repeated under several forms. Aristotle in 11 *Met.*, c. 14[1] believes that abstract substances are one according to form and many according to number. Therefore they must have matter because, according to Avicebron, matter is the cause of the multiplicity of forms. The conclusion is also supported by Aristotle's division of matter into sensible and intelligible matter —cf. 7 *Met.*, c. 12;[2] again: Aristotle in 10 *Met.* 7[3] claims that those beings that communicate in the same genus communicate in the same matter; hence the separate intelligences, being of the same genus, must have matter. Lastly, according to Aristotle in 7 *Met.* 18,[4] it is because all particulars have matter that they cannot be defined, even if they are eternal particulars; but the abstract intelligences are eternal particulars, and therefore have matter. The same can be deduced from Averroes, who in *super* 7 *Met.* 15[5] supposes that the individual is individuated by matter.

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[1] v, c. 24, p. 302:17.

[2] Cf. i, c. 54, f. 21^{r}.

[3] iv, S. 2, c. 6, f. 46^{v}b.

[4] i, S. 3, c. 4, f. 11^{v}b.

[5] xii, S. 2, c. 4, f. 158^{r}a.

[6] v, c. 3, *P.L.* 42: 913.

[7] c. 2, *P.L.* 64: 1250.

The new arguments put forward by Thomas are: (1) only God is essentially immaterial and incorporeal as John Damascene in c. 17 and 16[6] holds, and this is supported both by Aristotle's statement in 11 *Met.* 12[7] that only the First Form, which has no matter, is perfect, and by that of Averroes in *super* 11 *Met.*, c. 14[8] which declares that only the Highest Being can be really simple; (2) Augustine in *De Mirab.* 1, c. 1[9] speaks of an unformed matter from which God made visible and invisible beings, explaining in *Conf.* 12[10] that invisible and visible mean heaven and earth, and in *Super Gen.* 1, c. 2[11] making heaven and earth signify spiritual and corporeal creatures. Cicero, too, in *De Natura Deorum*, 3, c. 19[12] says that matter is that in which and from which all things are formed, and Avicebron, as we have seen (cf. p. 63), lays it down that matter and form are the two roots into which all things are resolvable; (3) Aristotle in 3 *Ce. et Mu.* 11[13] asserts that matter is in potency to all forms, but there is no reason for limiting these forms to corporeal forms, especially when Avicebron in 5, c. 18 and 19[1] has said that matter is susceptible to all forms as intellect is to all species.

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[1] xii, S. 2, c. 3, f. 156^{r}b.

[2] vii, S. 2, c. 12, f. 87^{v}a.

[3] x, S. 2, c. 1, f. 121^{v}b.

[4] vii, S. 2, c. 17, f. 96^{r}a.

[5] vii, S. 2, c. 8, f. 84^{r}b.

[6] *De Fide Orth.* i, c. 13, *P. Gr.* 94: 852, 853.

[7] xii, S. 2, c. 3, f. 156^{v}a.

[8] *Ibid.*, c. 4, f. 158^{r}a.

[9] i, c. 1, *P.L.* 35: 2151.

[10] xii, c. 3, *P.L.* 32: 829.

[11] i, c. 1, *P.L.* 34: 247.

[12] Not found.

[13] Cf. iii, S. 8, c. 3, f. 104^{v}b.

Having stated his reasons for maintaining that the intelligences like all other creatures have matter, Thomas gives the arguments for the contrary position. Dionysius in *Ang. Hier.*, c. 1[2] and in *Div. Nom.*, c. 4[3] speaks of the angels as abstract and immaterial substances, and in *Ang. Hier.*, c. 4[4] observes that in the angels that which lives and that which is vivified is the same thing. Avicenna in 4, c. 3[5] regards the perfection of the intelligences as indicating an absence of matter. Further, Aristotle, according to Averroes, 2 *Met.*, c. 1,[6] says that abstract substances are *per se* and naturally intelligible, but material forms have not this characteristic. Therefore abstract substances are not material forms. In 6 *Met.* 2[7] Aristotle also claims that unchanging, separate, and eternal things cause the things that are apprehended, i. e. those made of matter and form, but this could not be if matter were a common cause of both. Again, according to the same philosopher in 8, c. 10,[8] a common matter is not found in all natural things, but only in those that are generable and corruptible; therefore much less will it be found in spiritual substances. Moreover, if as Aristotle, according to Averroes 11, c. 9,[9] holds, abstract substances are eternal and have pure action, they must lack potency and therefore matter. Lastly, Algazel in tract. 5, c. 2[10] and 4 in fine[11] asserts that intelligences are not multiplied as individuals but only as species 'propter privationem materiae'—ff. 78^{v}a–80^{v}b, 234^{r} and ^{v}, 248^{r}.

To these arguments Thomas has not replied and with them we must close his treatment of the intelligences, for any further incidental contributions to this subject have been introduced as they have occurred in his discussion of other problems.

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[1] v, cc. 18 and 19, cf. p. 291: 18.

[2] *Opera*, Argentina 1503, ff. 1^{r}, 7^{v}.

[3] *Ibid.*, f. 200^{r}.

[4] *Ibid.*, f. 44^{v}.

[5] iv, c. 3, f. 86^{r}b.

[6] ii, S. 1, c. 1, f. 14^{r}b.

[7] Cf. vi, S. 1, c. 1, f. 68^{v}b.

[8] viii, S. 1, c. 6, f. 103^{v}a.

[9] xii, S. 2, c. 1, f. 148^{r}b.

[10] i, tract. 5, c. 2, f. 43^{r}a.

[11] i, tract. 4, sent. 7, f. 42^{v}a. After saying that the diverse natures of celestial bodies imply diverse movers or intelligences, Algazel remarks, 'Ea quod plura sunt numero non possunt intelligi in una specie nisi propter multitudinem materiae. Quod autem non est in materia, si multiplicaretur, non multiplicatur nisi propter diversitatem speciei'. This doctrine had been already taught by Avicenna, cf. *Met.*, tract. 9, c. 4, f. 105^{r}a.

NATURAL THEOLOGY

Of the various Divine characteristics that Thomas has collected from the philosophers (ff. 16^v–25^r) there are only three that bear directly on our subject, namely, God is a simple Being, God is immutable, and God is the Creator of the universe. His simplicity, we are told, implies both a necessary existence that is identical with His essence and an absence of matter (cf. pp. 92 f., 103). This absence of matter, as well as the fact that God is the cause of all forms, might lead to the conclusion that God is a pure form, but in reality, as Avicebron has said in 4, c. 20,[1] the term 'form' is not properly applied to Him, because it is of the nature of form to be sustained in matter (cf. p. 41 *supra*).

With regard to the Divine immutability, which signifies an absence of potency, Thomas raises a difficulty that had been already proposed by the Arabians, and that is, how can an immutable God be reconciled with the creation and the government of the universe? Hermes,[2] we are told, suggested that the mobility of God was not in Himself or in eternity, but *in effectu* and in time, and that although eternity is unchanging, yet, on account of time, it is subject to movement (*agitabilis*). With this suggestion Thomas does not feel satisfied, and again expresses the difficulty as: 'Quomodo potest immutabilis facere mutabilia, cum omne quod sit, fit a sibi conveniente et idem non est natum facere nisi idem.' The only solution he proffers are the views expressed by Aristotle in 8 *Phys*. 10 and 11,[3] 'Quod primum movens, cum sit immutabile, potest tamen esse causa variationis in rebus per hoc quod est aliquid primo motum ab eo cuius motus potest esse causa diversitatis earum', and in 8 *Phys*. 8,[4] 'Necesse est reducere omne motum ad motorem qui non movetur, alioquin procederetur in infinitum'; after which he (Thomas) continues, 'et propter hoc dicit Trismegistus, *De Sex Prin*., c. 12 [5], quod omne quod movetur, movetur a quiescente, unde non est inconveniens ab immobili procedere mobilia, immo necesse est quod immobilis et immutabilis agat mobilia et mutabilia'.

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[1] iv, c. 20, p. 255: 15.

[2] Cf. the *Asclepius* printed with the works of Apuleius in the Teubner series, vol. 3, c. 2 and 3.

[3] viii, S. 2, c. 5, f. 175^v f.

[4] Cf. viii, S. 2, c. 3, f. 169^{v}b f.

[5] *Ibid*., MS. Bodleian no. 464, c. 12, f. 155^v.

Of God as the Creator I have spoken already on p. 59; here I will restrict my attention to the question of the possibility of an eternal creation—one of the most important questions of the thirteenth century about which all our Franciscans agreed. In discussing this Thomas relates in detail the account given by Rabbi Moyses of the arguments of Aristotle for an eternal world and the Jew's criticism of them, but since practically the same arguments were raised and answered by Grosseteste, there is no purpose in repeating them here.[1] Thomas's own contributions to the problem are based chiefly on the contingency of the creature and on the nature of infinity. As to the first, he holds that no being can be the efficient cause of itself because every efficient cause is prior to that which it produces, and clearly, a thing cannot be prior to itself. Therefore, all existents demand a First Cause. If we do not suppose that this First Cause produced things out of nothing, we have to allow that things were made out of something. Now this something cannot be the immutable, for it is not mutable; nor can it be the mutable, for of this we can again ask from what is it made and so on, *ad infinitum*. The world, then, must have been created out of nothing. Some may say that the world could be thus created and yet be *ab aeterno*; but this is contradictory, for an eternal being must have been always in existence and could never have been preceded by non-being, as Avicenna 4, c. 2 [2] has shown.

From the nature of the finite and the infinite it is likewise clear that the world must have been created in time. Avicenna in 8, c. 1 [3] asserts that whatever has an end is finite. Now all past time up to the present has an end, for Aristotle in iv *Phys.*[4] describes the present as the end of the past and the beginning of the future. Wherefore all time preceding the present is finite, and therefore not eternal. According to the same reasoning, it follows that the movement of the heavens is finite, because the last revolution in the series is the present one, which is measured by the present time. Again, whatever was future had a beginning, but all the past was once a future. Therefore it had a beginning and so is not infinite. Thirdly, every infinity, whether of number, quantity or form, is unknowable, as Aristotle in I *Phys*. 7 [1] says. If, therefore, the number of celestial movements were infinite, it could not be known even by the movers of the celestial bodies, for, according to Aristotle and Averroes *super* ii *Met*. 2,[2] the intelligences are finite; and clearly, the infinite can only be imagined and not known by man, because nothing is known except it be determined by the intellect. Fourthly, since there cannot be two infinites, all distinct things are finite, as Averroes *super* v *Phys*., c. 5 [3] held. But if the world is eternal, distinct things, such as time and movement, become infinite. Fifthly, were the world eternal, matter would have to be infinite, in which case it would require an infinite form to transmute it, an infinite mover to move it and an infinite space in which to move. Finally, Thomas uses Grosseteste's argument concerning an eternal world implying an infinite number of separated souls, and he adds that if there is to be a general resurrection, as the Christian faith teaches, there must also be an infinite space for the infinite number of men, but Aristotle has shown that an infinite space cannot exist. Consequently, the eternity of the world being impossible, we must suppose that God has willed to create the world out of nothing, and that with this creation time and movement came into being.

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[1] These are to be found in pp. 274–5 and 280–1 of E. Longpré's transcription of Thomas's chapters on creation in 'Archives d'Histoire Doctrinale et Littéraire du Moyen Âge', Paris 1926, t. I, pp. 268–308. I have used this transcription for the following account of Thomas's theory.

[2] iv *Met.*, c. 2, f. 85^v.

[3] viii *Met.*, c. 1, f. 97^{v}a.

[4] Cf. iv, S. 3, c. 1, f. 80^{v}b.

The problem of creation naturally leads to the question of God's knowledge since, as Rabbi Moyses in c. 146 [4] proclaims, nothing is willed unless it is known. That which God knows is the eternal exemplar or idea used in the production of the world. Such an exemplar must be posited, for Plato in *Timaeus*, I [5] holds that every artist has before him the form of the thing to be made, and Aristotle in 7 *Met*.[6] and 11, c. 6 and 7 [7] contends that all that is made is produced from something similar in nature. Secondly, if God knows that which He wills, He must possess the species of things, for Aristotle maintains that things are not in the knower according to their material and corruptible being. Thirdly, in 11 *Met.* 7[1] Aristotle adds that the form of that which is moved is in the mover, and Averroes commenting on this passage[2] argues that the form of the First Mover in some way includes all forms. Finally, in the same passage 'the philosopher' reduces the four causes to three, namely, matter, privation, and the mover, and thereby identifies the form with the efficient cause.[3]

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[1] i, S. 2, c. 2, f. 11^vb.

[2] Cf. ii, S. 1, c. 2, f. 16^va and b.

[3] Cf. iii, S. 3, c. 4, f. 49^rb.

[4] iii, c. 20, f. 82^v.

[5] *Tim*. 28.

[6] vii, S. 2, c. 6, f. 81^ra.

[7] xii, S. 1, c. 4, f. 145^rb.

Now these eternal exemplars implied in creation must be internal to the Divine Mind if the infinite regress difficulty is to be avoided. The only senses in which they can be external are (*a*) in their material being, and (*b*) in the mind of man or in the minds of the separate intelligences who by regarding the Divine exemplars produce material beings.[4] As existing in the Divine

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[1] *Ibid.*

[2] xii, S. 1, c. 4, f. 145^{v}a.

[3] These last two reasons are important because they show that Thomas regarded Aristotle as agreeing with himself and with Plato in supposing that the eternal exemplars are in the Divine Mind. So, too, on f. 32^{v}a he remarks that the Christian interpretation of ideas only apparently differs from that of Aristotle. He thinks that Aristotle's attack on ideas as substances existing *per se* could not apply to Plato himself, for Plato regarded ideas as existing only in the Divine Mind—f. 34^{r}b. This interpretation of the Platonic doctrine, which was rejected by Grosseteste (cf. *Hex.* f. 142^v), is supported by Thomas on the authority of Seneca, *Epistle* 67 (cf. no. 65 of Teubner edition), Trismegistus, *De Sex Principiis* 2 (cf. MS. Bodleian no. 464, *ibid.*, c. 2, f. 151^v) and Augustine in *83 Quaestionibus* (q. 46, *P.L.* 40: 30), and also of Plato himself. The latter in *Tim.* 1, (30) says that the world is of incomparable beauty; now an exemplar must be of greater beauty than that which is produced, therefore if the exemplar were produced, there would be something more beautiful than the world. Consequently, since such a beauty could not be produced, the exemplar can exist only in the Mind of God—cf. ff. 33^{r}b–33^{v}a.

[4] This triple existence of ideas is, according to Thomas, what Plato understands by triple substances, viz., theological, mathematical, and physical, or what Augustine means by the threefold existence of things, viz., 'in Verbo increato, in intellectuali natura creata, et in materia'. Regarding the second type Thomas remarks, 'De secundo vero esse fuit dissentio inter Platonem et Aristotelem. Radix huius dissentionis fuit, ut aestimo, principaliter tota materia contradictionis, nam Aristoteles aestimavit esse rei in anima aut intellectu posterius esse rei exemplum in materia, utpote generatum ex ipsa et esse idem in mente esse universale, et ideo dixit i. *De An.* quod universale aut nihil est aut posterius est, et ideo aestimavit substantiam mathematicam negotiari ex ablatione, i.e. ipsam esse ex abstractione, et ideo posteriorem re a qua fit abstractio. Plato vero e contrario credidit, videlicet quod species rei in anima est prior ea quae est in re extra, quare quae fiunt ex ablatione i.e.

Mind, these ideas, as Seneca in *Ep.* 60 [1] and Augustine in *83 Quaestionibus* [2] claim, are numbered according to the number of individuals as well as according to species and genera, for God makes individuals as well as species. Moreover, as Hermes in *De Hedera* says, God conserves singulars and therefore, He must know them. Hence Thomas concludes: 'Scit omnes species et omnia genera, omnes substantias et omnia accidentia et nihil deest scientiae ipsius, sicut dicit Algazel, tt. 3, diff. 3,[3] omnia possibilia etiam et omnia singularia secundum eumdem, diff. 5 and 6.' [4]

The notion that singulars are often evil or that they can be apprehended only by sensory beings leads men to deny to God a knowledge of singulars, said Rabbi Moyses (c. 143),[5] but if we apprehend singulars, there is no reason why God, who is free from our imperfections, should not do likewise. Aristotle, too, continues Thomas, is supposed in xi *Met.* 14 [6] to have denied to God a knowledge of externals on the following grounds: (*a*) That which is understood perfects the intellect. Therefore, if God understood other than Himself, there would be something more perfect than God; (*b*) If God understood externals, He would be subject to alteration, and this would involve both potency

abstractione, posteriora sunt et per consequens deteriora naturalibus et sensibilibus, utpote generationem ex ipsis habentia. Unde cum secundum Platonem anima est multo melior natura et singularibus et sensibilibus, inconveniens est ipsam habere in se ipsas rationes sive species subsistentes et non habere ipsas ante sensibilia inhaerentes similiter rationabiliter et animaliter, hoc est secundum rationem naturalem ipsius animae cum necesse est ipsam habere eas meliores et natura priores, et ideo dixit substantiam mathematicam priorem naturali et inter ideas primitivas in mente conditoris dixit formas mathematicas medias inter ipsas et formas naturales sicut esse rei intellectiva natura est media inter esse eius in verbo et esse eius in materia vel natura secundum Augustinum, et dixit has species inhaerentes animae ex sua conditione formas mathematicas propter, numerum specierum ipsi intelligentiae ex creatione inditarum'—f. 33^{r}a. Such is Plato's conception of a separate existence, for, as Seneca *Ep.* 60 (no. 58 of Teubner edition) points out, Plato does not deny a predicable universal. If he speaks of the separate man being the true man, he means, like Augustine, Gregory, and Avicenna, that the being of created man is as nothing when compared to the *esse increatum* of man—ff. 33^{v}a, 35^{v}b.

[1] No. 58 of Teubner edition.

[2] q. 46, *P.L.* 40: 30.

[3] *Op. cit.*, Lib. i, tract. 3, diff. 3, f. 30^{v}a.

[4] *Ibid.*, diff. 5 and 6, ff. 31^{r}b, 32^{r}a.

[5] *Op. cit.*, Lib. iii, c. 17, ff. 79^{v}, 80^{r}.

[6] This ought to have read 'secundum Averroem'—cf. xii, S. 2, c. 5, ff. 157^{v}, 158^{r}.

and imperfection; and (*c*) In that which is absolutely free from matter, the intellect and that which is understood are identical; therefore, if the Divine intellect understood things *per se*, God would understand Himself *per accidens*, as men understand themselves. Nevertheless, Thomas is of the opinion that Aristotle's view does not really differ from his own, and he finds the reconciliation in the statement of Boethius in *De Consol.* v, c. 9 [1] that there are two ways of knowing—'unus est per obiectorum antecessionem, alter est per actus mentalis expeditionem seu expressionem'. The first way he takes as applying to those beings whose 'passio corporis antecedit vigorem mentis' and the second as 'in hiis quae a cunctis affectionibus corporum sunt absoluta in discernendo non obiecta extrinsecus sequuntur, sed actum suae mentis expediunt'. Consequently, argues Thomas, when Aristotle denies to God a knowledge of things other than Himself, he has in mind the first discursive method of knowing, and that with this it is necessary to agree if the Divine characteristics of being first, immutable, and perfect are to be preserved. As Algazel in 1 *Met.* 3 and 7 [2] says, God knows things only inasmuch as they have their source in Him—a vital point, for the Divine knowledge being the sufficient cause of creatures, it will be, as Averroes in *super* 11 *Met.* 14 [3] pointed out, neither of universals nor of particulars, because this distinction arises only when *ens* is the cause of knowledge, i.e. when knowledge is derived from the external world—ff. 28^{v}a–34^{v}b.

These ideas of species and individuals, which must be posited as existing in the Divine Mind in order to save creation and providence, do not imply a real multiplicity any more than the plurality of Persons does (f. 33^{v}b), for since God is a simple Being, these ideas cannot be other than Himself. This conclusion is borne out by the facts that in the immaterial intelligences, as Aristotle holds in 11 *Met.* 14,[4] thought and that which is understood are the same, and that even in the human soul, which in some way depends on matter, knowledge, as Algazel in tract. 2, sent. 1 [5] observes, involves the identity of the knower and that which is known [1]—f. 28^rb. Hence, God's knowledge being identical with His essence, He is *sciens et actu intelligens*—a characteristic well befitting the noblest being. Again, since willing depends on knowing, the will of God must be identical with His essence and therefore always in act, as Aristotle in 11 *Met.* 14 [2] believes—f. 28^rb. Being pure actuality, the Divine Will is not moved by any appetite for something that it lacks or by any *intentio*, and so from this standpoint it might be said to will of necessity all that is good—f. 39^ra and b. Of the interesting discussion on Providence which follows (ff. 40^v–5^v) it is not our business to treat.

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[1] v, c. 5, *P.L.* 63: 854.

[2] i, sent. 3, f. 30^{v}a and sent. 7, f. 32^{r}b.

[3] xii, S. 2, c. 5, f. 158^{r}b.

[4] Cf. xii, S. 2, c. 4, f. 157^{r}a. Thomas, following Averroes *super* xii, S. 2, c. 5, f. 158^{r}a, takes Aristotle's 'beings without matter' to refer to the intelligences.

[5] Cf. *op. cit.*, Lib. i, tract. 3, sent. 1, f. 30^{r}.

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[1] Later, on f. 29^rb, Thomas says that in human souls and in the intelligences the intellect and that which is understood are not completely the same, because these beings have not complete simplicity.

[2] xii, S. 2, c. 3, f. 151^rb.

ROGER BACON

ROGER BACON

ROGER BACON, known to his successors as *doctor mirabilis*, was born about 1214 near Ilchester, in the county of Somerset. About 1230, he seems to have been at Oxford, for in the *Comp. Stud. Theol.* (ed. Brewer) p. 34 he says, 'Beatus Edmundus Cantuariensis Archiepiscopus primus legit Oxonie librum elencorum temporibus meis,' and we know that Edmund ceased to lecture about that time. At an uncertain date Bacon took the degree of M.A., and later the M.A. of Paris. There is no evidence for supposing that he ever became a doctor of divinity.

According to Professor Little,[1] Bacon appears to have been in Paris before 1236, and from his own statement in the *Op. Maj.* (ed. Bridges) i, 401 we know that he was still there in 1251 when he saw the leader of the Pastoureaux rebels. During this period he lectured on the *De Plantis* and produced his *Quaestiones* on Aristotle's *Physics* and *Metaphysics*—works which employ the *sic et non* method originated by the canonists of the eleventh century and bear the impress of an immature but vigorous mind. Whether he returned to England between these dates we do not know. Probably he did, for his remark in the *Comp. Stud. Theol.* (p. 53) that Richard of Cornwall was lecturing on the *Sentences* at Oxford in 1250 and his scorn for him suggest that he may have heard Richard, who we know was absent from Paris between 1237 and 1253.[2] On the other hand, his attitude may have been occasioned by later contact with Richard, who succeeded Thomas of York as master at Oxford in 1256. According to the *Opus Tertium* (ed. Brewer), p. 59, it was about 1247 that Bacon's scientific and philological interests began to awaken, and during the years 1256–66, when ill-health required him to retire from academic activities, these had an excellent opportunity to develop. To the latter part of this period Professor Little [3] would assign the *De Speculis*, *De Mirabili Potestate Artis et Naturae*, the *Metaphysica*,[4] the *De Multiplicatione*

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[1] 'Bacon's Life and Works' in *Roger Bacon Essays*, Oxford 1914, p. 4.

[2] Cf. A. G. Little, 'The Franciscan School at Oxford' in *Arch. Fran. Hist.*, 1926, p. 841.

[3] *Roger Bacon Essays*, p. 3.

[4] This is a portion of Part IV of the proposed *Scriptum Principale* and should not be confused with the *Quaestiones on the Metaphysics*. See p. 121.

Specierum and certainly the *De Computo Naturali* which on internal evidence dates from 1263–4.

On 22 June 1266, Guy de Foulques, who before his election as Pope Clement IV had heard of Bacon's writings, wrote a second time to Bacon requesting him to send immediately a copy of his works, regardless of any forbidding Franciscan constitution.[1] Bacon's elation over the Papal interest led him to begin the *Communia Naturalium*—a proposed exhaustive account of the various branches of knowledge. He soon realized the enormity of the task which he had undertaken, and in January 1267 laid aside the *Communia Naturalium* for the less pretentious encyclopaedia, the *Opus Maius*. In 1268, this latter work, together with the older *De Multiplicatione Specierum*, the *Opus Minus*, an alchemical treatise, and possibly the *Opus Tertium*, was dispatched to the Pope. Bacon then proceeded with the *Communia Naturalium*, and also produced his introduction to the pseudo-Aristotelian *Secretum Secretorum*,[2] the Greek and Hebrew grammars, and about 1272, the incomplete *Compendium Studii Philosophiae*.

In 1277 appeared Bishop Tempier's condemnation of 219 erroneous theories circulating in Paris. This seems to have stirred those in high office, for in the same year we find the Minister General of the Franciscans, Jerome de Ascoli, calling many of the Order to give an account of themselves. Among these was Bacon, summoned, according to the *Chronicle of the Twenty-four Generals*, because of 'certain suspected novelties'. What these novelties were we do not know. Certainly, they could not have been of a scientific or of a philosophical nature; and contrary to the common opinion, there seems to be nothing unique in Bacon's astrology or alchemy. Again, his attack on the moral and intellectual standards of the Church could hardly have been the crux, for this was written expressly for the Pope, and was only another instance of that reforming spirit which had periodically appeared in the history of the Church and which, indeed, had led St. Francis himself to respond to the command—*Repara Domum meam quae, ut cernis, tota destruitur*.

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[1] This is the first intimation that we have of Bacon's being a Franciscan. The date of his entrance is unknown, though by inference from casual remarks it is generally placed about 1250.

[2] Steele in the introduction to his edition of this work (p. viii) thinks that the glosses were probably written before 1257.

Besides, the glorification of the Church was always Bacon's chief concern in promoting the study of languages, mathematics, optics, geography, and chronology.[1] Judging from his works, there can be little doubt that one of the main reasons for his condemnation was his obnoxious attack on his contemporaries, Franciscans as well as Dominicans and seculars. Thus he refers to Richard of Cornwall as 'an absolute fool' (*Comp. Stud. Theol.* p. 52), to Alexander of Hales, who he admits was one of the great promoters of the Order, as 'ignorant of natural philosophy and metaphysics' (*Op. Tert.* p. 326), to Albert the Great, or St. Thomas, as a teacher yet unschooled and one whose works are full of 'puerile vanity and voluminous superfluity' (*Op. Tert.* p. 30), to William of Moerbecke as an ignorant man undermining philosophy by his false translations (*Comp. Stud. Theol.*, p. 471), to the Dominicans of Paris as the greatest corruptors of the Biblical text (*Op. Tert.* p. 93), and lastly, to the seculars as neglecting theology and philosophy and relying on the Orders (*Comp. Stud. Phil.* p. 428). Such remarks were bound to bring him into disfavour, but whether or not they were the accusations laid against him, we know that his works were condemned and he himself confined to his convent from 1277 to 1292, when the Minister-General died. On his release, Bacon began the *Compendium Studii Theologiae* which, owing to his death in the same year, was never finished.

No doubt the condemnation of Bacon's works is responsible for the lack of any marked influence on his immediate successors, though as Professor Duhem points out [2] there are resemblances between his astronomy and that of the Franciscan, Bernard of Verdun, and between his perspective and that of Pecham and of William Saint-Cloud. About 1290, William Herbert, a Franciscan master at Oxford, secured some of his manuscripts, and about the same time Pierre Dubois, a pupil of Siger of Brabant, became interested in his experimental and mathematical teaching. By the end of the fourteenth century, Professor Little [3] tells us, Franciscan chroniclers placed Bacon among the famous natural philosophers of the Order, and by the fifteenth century disputants quoted him in the schools at Oxford, while an official letter of the University mentioned him among the 'modern Oxonians' who had kept untarnished the brightness of Oxford's fame.

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[1] Cf. *Opus Tertium* (ed. Brewer), pp. 95, 199, 203; *Opus Tertium* (ed. Little), pp. 11, 17, 40; and *Opus Maius* (ed. Bridges), i, pp. 175, 269, and iii, p. 115.

[2] *Le Système du Monde*, t. III, pp. 446 f., 471, 511 f.

[3] *Roger Bacon Essays*, p. 30.

BACON'S RELATION TO HIS CONTEMPORARIES

Speaking of Bacon's criticism of the prevalent Latin philosophy, Professor Adamson[1] comments, 'It may seem but a small thing for a writer to reject authority, but one must reflect on what that meant in Bacon's time. It meant absolute revolt against the whole spirit of scholasticism, it was the assertion of freedom of thought, of the claims of science to push forward to its conclusions, regardless of fancied consequences.' In the light of what has been said in the foregoing pages about the comprehensive methods and aims of Grosseteste and of Thomas of York, it will be clear that the value of such a statement must be greatly discounted.[2] Even the dialectic Scholasticism of Paris could not have been so hidebound as Professor Adamson suggests, for during Bacon's residence there, we know that among the active teachers were Alexander of Hales (d. 1245) who was attempting to correlate the old Augustinianism with the newly introduced philosophy of Aristotle; William of Auvergne (d. 1248), a great admirer of Aristotle and of Avicebron; John de Garlandia (d. 1252), the zealous grammarian; Albert the Great (d. 1280), to whom even Bacon refers as 'primus magister de philosophia', and whose interest in science was considerable;[3] and Bonaventura, nominated by the Minister General, John of Parma, in 1248 'ut Parisiis legeret'. But whatever the conditions at Paris, we have seen that Scholasticism at Oxford, as represented by Grosseteste, Adam Marsh, and Thomas of York, had already established the claims of science and the freedom of thought. That Bacon simply took up the Oxford tradition is borne out by the late appearance of his scientific and philological interests, interests found only in the works written after he had become a Franciscan [1] and after he had had access to the writings of the aforesaid men.[2]

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[1] *Roger Bacon: the Philosophy of Science in the Middle Ages*, Manchester 1876. Reprint in *Roger Bacon Essays*, p. 13.

[2] For the same reason we must discredit Dr. Bridges's conjecture (Introduction to the *Opus Maius*, p. xxxi) that Bacon's view of the Divine inspiration of Greek philosophy and of the ethical value of the Stoics and such Mohammedan writers as Alfarabius, Avicenna, and Algazel may have been the cause of his condemnation.

[3] The first Bacon tells us he had seen—*Opus Minus* (ed. Brewer), p. 325, the second and third he had heard—*Opus Maius*, iii, p. 47 and *Comp. Stud. Phil.* (ed. Brewer), p. 453. It is more than probable that he must have heard Albert the Great, whose doctrines he constantly attacks.

Of the many striking similarities between Grosseteste and Bacon we need mention only their theories of calendar reform, of meteorology, of the propagation of force, of the value of philological and linguistic studies, and of the importance of mathematics and experiment for natural science.[3] His resemblance to Thomas of York, apart from such as will be noted in the following pages, lies chiefly in his passion for the Arabians and Aristotle. Avicenna is spoken of as 'perfectus imitator et expositor Aristotelis atque lux et princeps philosophiae post eum' (*Op. Maj.* ii, p. 10), Alhazen, his particular source, as 'auctor certissimus' (*ibid.* p. 520), Averroes as 'homo solidae sapientiae' (*ibid.* iii, p. 67), while Aristotle, that 'excellentissimus omnium philosophorum' (*ibid.* ii, p. 244), is constantly cited in spite of Bacon's observation in *C.N.* p. 150: 20—'non oportet nos, querentes mentis soliditatem, imitari Aristotelem in omnibus'.

It would be, however, quite unjust to give the impression that Bacon merely imbibed the teaching of these men whom he calls 'maiores clerici de mundo et perfecti in scientia divina et humana' (*Op. Tert.* pp. 75, 70) and whom he ranks among the 'anglicani qui satis inter alios homines sunt et fuerunt studiosi', contrasting them with the 'capita vulgi philosophancium Parisius'—*C.N.* p. 283: 10, 284: 32. In the study of languages and optics he made great advances. As regards the former,[4] there can be little doubt that he studied under some of those Greeks whom, he says, Grosseteste brought to England (*Op. Tert.* p. 91), or even under Adam Marsh who, he tells us, laboured much at languages (*Op. Maj.* iii, p. 88). He produced a Greek and a

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[1] The late appearance of these interests suggests that Bacon had not attended Grosseteste's open lectures to the Franciscans between 1229–35.

[2] In *Op. Mai.* i, p. 108 he cites the *De Impressionibus*, *De Iride*, *De Cometis*, and *De Generatione caloris* as works of Grosseteste *and* Adam Marsh. Cf. *Comp. Stud. Phil.* p. 469.

[3] Cf. Baur, 'Der Einfluss des Robert Grosseteste auf die wissenschaftliche Richtung des Roger Bacon' in *Roger Bacon Essays*, p. 33 f.

[4] Cf. Hirsch, 'Roger Bacon and Philology' in *Roger Bacon Essays*, p. 101 f.

Hebrew grammar, and made constant attacks on the corrupt text of the Bible[1] and on the bad translations of Aristotle.[2] As to Optics, Bacon had the advantage of being able to enrich the theories of Grosseteste with those of Alhazen and of Alkindi.[3]

His concern for mathematics and experiments, often regarded as his crowning glory, is not as remarkable as one might be led to suppose. His mathematical interest seems to be more in applied than in abstract mathematics, and, as far as experiment is concerned, Bacon may speak of it as the lord of all sciences, the door to knowledge, and the criterion of truth, but Mr. Thorndike[4] has shown that Bacon's advances beyond the contemporary practical experiments made by artisans and alchemists were largely of an imaginary kind, and consisted chiefly in testing the results of speculation by practical utility. Perhaps the really outstanding manifestation of his scientific bent lies in that extraordinary foresight which led him to see the magnifying properties of convex lenses, the inherent power in gunpowder,[5] and the possibility of flying machines and of mechanically propelled boats. However, this same ability, which shows itself in other spheres as a knack of correlating the sciences, of grasping the unity in history, or of seizing upon the causes of human error, was Bacon's weak point as far as philosophy was concerned. United with his energetic and imperious temperament, it shows itself in a tendency to dismiss theories with which he disagrees, in a confidence in his own peculiar capacity to interpret Aristotle rightly, and in an inability to consider calmly the implications and value of his own philosophical innovations. Since these weaknesses will appear in the following exposition, I pass on to the last reason for supposing Bacon's work to be of unique value, namely, the account of contemporary civilization given in his writings. In this there can be no question that Bacon excels, but here again the tendencies of his erratic nature must be weighed against such statements as 'almost nothing is known of Aristotle's philosophy and only three men properly grasped the translated books of Aristotle' (*Comp. Stud. Theol.* p. 34), or against his contempt for the standards of the theologians of Paris—an attitude difficult to reconcile with Grosseteste's advice to the Oxford masters to follow these theologians.[1]

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[1] Cf. Gasquet, 'Roger Bacon and the Latin Vulgate' in *ibid.*, p. 89 f.

[2] Cf. *Op. Tert.* (Brewer) p. 75; *Comp. Stud. Phil.* p. 469.

[3] Cf. Wiedeman, 'Roger Bacon und seine Verdienste um die Optik' in *Roger Bacon Essays*, p. 185, and Würschmidt, 'De Speculis' in *ibid.*, p. 229.

[4] *A History of Magic and Experimental Science*, London 1923, vol. ii, p. 649 f.

[5] On the improbability of Bacon being the discoverer of gunpowder, cf. Thorndike, *op. cit.*, vol. ii, p. 688.

THE WORKS OF BACON

A full bibliography of Bacon's works is given in *Roger Bacon Essays*, p. 375 f. Of these we have used:

Quaestiones super libros I–V Physicorum Aristotelis. Ed. Delorme and Steele, Oxford 1928.

Quaestiones supra undecimum prime philosophie Aristotelis (Met. XII). Ed. Steele, Oxford 1926.

Secretum Secretorum cum Glossis et Notulis Fratris Rogeri. Ed. Steele, Oxford 1920.

Compotus Fratris Rogeri. Ed. Steele, Oxford 1926.

Communia Naturalium. Ed. Steele, Oxford 1909, 1911, and 1913. (This is part iii of the intended *Scriptum Principale.*)

Metaphysica. Ed. Steele, Oxford 1909. (This is a portion of part iv of the *Scriptum Principale.*)

Opus Maius. Ed. Bridges, 2 vols., Oxford 1897, with a third volume containing revisions and corrections. London 1900.

De Multiplicatione Specierum. Ed. Bridges at the end of vol. ii of the *Opus Maius.*

Opus Minus. Ed. Brewer in *Roger Bacon, Opera inedita,* London 1859.

Opus Tertium. Ed. Brewer in *Roger Bacon, Opera inedita.* London 1859. (Further fragments of this work, which like the *Opus Minus* is a supplement to the *Opus Maius,* were edited by Duhem, *Un Fragment inédit de l'Opus Tertium,* Quaracchi 1909, and by Little in *Brit. Soc. of Franciscan Studies,* vol. iv, Aberdeen 1912.)

Compendium Studii Philosophiae. Ed. Brewer in *Roger Bacon, Opera inedita,* London 1859. This is a portion of part i of the *Scriptum Principale*—a work meant to be an enlarged edition of the three *Opera.*

Compendium Studii Theologiae. Ed. Rashdall in *Brit. Soc. of Franciscan Studies,* vol. iii, 1911.

THE THEORY OF BECOMING

Becoming, as generation, is confined to the non-celestial bodies, and is a process that implies three principles—matter, privation, and form. The manner in which matter and form are involved is illustrated by the following statement: 'Generacio non est in rebus transmutabilibus nisi quia forma quam habet materia est imperfecta et non potest perficere eius appetitum, propter quod semper appetit novam'—*C.N.*[1] 70: 3, the capacity to seek a new form being really privation. 'Privacio proprie dicta fertur ad formam qua caret materia'—*C.N.* 70: 2.

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[1] Cf. *Epistolae Roberti Grosseteste,* ed. H. Luard, London 1861, no. 123.

In the *Communia Naturalium* Bacon countenances the view of Thomas of York that these principles are three *secundum rationem* but two *secundum rem.* 'Materia ut est privata et in potencia dicitur privacio, set ut secundum se est aliqua natura absoluta, dicitur materia'—*C.N.* 81: 4, cf. i *Phys.*, p. 49: 12. The absolute nature of matter is its general desire for perfection. Its privation, an accident of this absolute nature, is either active or passive, according as it is regarded as that by which matter desires a particular new form [2] or as that by which matter is able to experience change—*C.N.* 79: 4 and 15. 'De potentia materiae [3] contingit loqui dupliciter, primo modo quantum de potentia eius passiva et recipiente tantum, . . . et per hanc se habet materia ad omnes formas per indeterminationem, et hec eadem est cum ipsa in essentia, et per hanc nullam formam actu suscipit; alia est potentia materie que dicitur conferens, obediens, vel bene passiva, et hec [4] quodam modo agit et ad productionem formarum disponit. Et de hac contingit loqui uno modo per relationem ad id cuius est, scilicet ad materiam, et sic iterum eadem est cum materia et una; alio modo per relationem ad que confert, et sic differens est et plures, et hoc modo diversificatur secundum numerum generabilium et corruptibilium quorum productionem disponit et ad que confert'[5] —*Quaest. Met.* xi, p. 9: 14. Because the potency of matter may be regarded from these two points of view, we are able to reconcile such apparently contradictory statements in Bacon as—

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[1] These initials will be used to signify the *Communia Naturalium.* Throughout this work I have used the orthography adopted in Steele's edition.

[2] As I have implied on p. 15 *supra*, this active potency for particular forms distinguished the Franciscan conception of matter from that of the Thomists who attributed to matter only a general desire for form.

[3] I have substituted 'materiae' for '⟨in⟩ materia' of Steele's edition.

[4] I have used this alternative reading for Steele's 'hoc' and I have changed the following 'quedam' to 'quodam' as the sense obviously requires.

[5] In Steele's edition this line runs, 'corruptibilium ad que, quorum productione disponit et confert.'

'hec ⟨passiva⟩ potencia . . . est propria passio materie' (*C.N.* 79: 20), and 'essencia materie naturalis dicitur activa et habere potenciam activam propter actualitatem sue essencie et nature promovende in complementum . . . ⟨materia⟩ non meretur vere dici potencia passiva nisi equivoce'— *C.N.* 81: 19. This active potency in matter is called 'racio seminalis' by theologians, therefore it may be concluded that 'racio seminalis non est nisi essencia materie inquantum conatur et appetit'—*C.N.* 85: 1.

In discussing the development of this active potency, which he considers as best preserving the doctrine of Aristotle by preventing generation from being a violent or non-natural process (*D.M.S.*[1] p. 433, and *C.N.* 112: 26), Bacon makes it clear that the agent plays a very real part for 'materia non habet in se aliquod principium effectivum et transmutativum, sed appetitivum'—*C.N.* 112: 23. The agent does not merely excite the *rationes* to develop themselves, as some have been led to suppose by Aristotle's statement that 'natura est principium motus intra',[2] but it actually transmutes the matter so that the form may be educed, for, in some way, the agent possesses that which the matter is to receive—*C.N.* 84: 6. Hence it can be said that 'natura non est principium in moto set in movente' (*C.N.* 115: 18), or, following Aristotle, 'omne movens habet aliquid actualitatis quod non habet mobile, et respectu cuius mobile est in potencia'—*C.N.* 83: 24. It is through this actuality that the agent is able to assimilate to itself the recipient[3]—*C.N.* 16: 16.

The way in which the assimilation occurs is developed at great length by Bacon. The actuality possessed by the agent and styled *virtus agentis*, *similitudo*, *species*, or *imago* (*C.N.* 16: 29, and *D.M.S.* p. 409) can produce the assimilation for three reasons: (*a*) it resembles the agent's definition, operation, and composite whole, and not merely its form (*C.N.* 17: 10,

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[1] These initials signify the *De Multiplicatione Specierum*.

[2] *Phys.* ii, S. 1, c. 1, f. 23^{r}a of the edition by Juntas, Venice 1550.

[3] Speaking of this assimilation, Bacon remarks, 'Deus autem non facit speciem extra se, set creat de nichilo, nam sua species et ymago et similitudo genita naturaliter est Filius Dei Patris, habens eandem substanciam cum eo. Et omnis creatura, quantum potest, imitatur operacionem divinam, set hoc non est communicando essenciam eandem numero, set faciendo extra se rem consimilem in natura specifica'—*C.N.* 22: 21.

D.M.S. pp. 411, 423), (*b*) being emanated from the agent because every substance is active, it is able to come into contact with the recipient (*C.N.* 14), and (*c*) every creature has the aptitude to be assimilated to others (*C.N.* 20: 29, *D.M.S.* 478).

With regard to (*a*) it is only said that the species is an incomplete stage of the agent (*D.M.S.* 413), and that therefore the species of substances are of the nature of substances and those of accidents are of the nature of accidents, because the species is 'primus effectus agentis similis ei in natura'. Consequently in *D.M.S.* 420 Bacon remarks, 'sicut accidens non potest esse sine substantia, sic nec species accidentis sine specie substantiae' and by this he excludes the possibility of an accident generating a substance—*D.M.S.* 412.

With (*b*) and (*c*) Bacon makes important contributions to the study of generation. I take (*c*) firstly, because it is less amplified. Although every creature has an aptitude to be assimilated to the agent, Bacon holds that in some this aptitude is of the minimum degree, and therefore the agent can merely set up a change on the surface, as a seal does on wax. Only when the aptitude is of the maximum degree can the surface change be communicated to the innermost parts of the recipient and result in real assimilation or generation—*C.N.* 19: 3. Returning to (*b*), we find that although all substances, whether spiritual[1] and corporeal or universal and particular, are able to propagate their species, certain accidents, such as *quantitas*, which is a *passio* of inactive matter,[2] *relatio*, *situs*, and *quando*, have not this power. Likewise, the properties apprehended only by common sense, e.g. magnitude, position, and movement, lack the power, and are merely inferred from the species of light and colour—*C.N.* 21: 4 f., *D.M.S.* 426 f., *Op. Tert.*[3] p. 108.

What is this 'species' that is regarded as coming from the innermost parts of the agent? Bacon believes that it cannot be anything that the agent emits from itself, for then the agent would be gradually corrupted instead of perfected by its activity. Again, it can be neither something created by the agent nor something taken by it *ab extra* and injected into matter. It is, rather, a force propagated by the agent and acting 'per naturalem immutationem et eductionem de potentia materiae patientis'—*D.M.S.* 432 f. This force is nothing but the transmuted medium, for it must be corporeal in order to resemble the agent and the recipient, and it cannot be spiritual in the sense in which that word is applied to God, to the angels, and to human souls[1]—*ibid.* 507. Nevertheless, it is not a *corpus secundum se*, because then two bodies would occupy the same place. Consequently, it remains for this propagated force or species to be, as Dr. Bridges suggests (*D.M.S.* 504, n. 1), a 'portion of the medium momentarily modified by the agent'. 'Cum medium sit principium materiale, in quo et de cuius potentia per agens et generans educitur species, non poterit haec species habere aliam naturam corporalem a medio distinctam'[2]—*D.M.S.* 503. Hence Bacon can assert that the species is not the same in number in any two parts of the medium. 'Non est ⟨species⟩ idem numero in prima parte medii et secunda et aliis. Nec illud quod est in parte prima exit eam, nec similiter quod est in secunda vadit ad tertiam, sed quaelibet in suo quiescit loco; et ideo non est aliquid quod moveatur ibi de loco ad locum, sed est continua generatio novae rei, sicut est de umbra quae non movetur sed renovatur diversa et diversa, nec est renovatio penes loca proprie et per se, sed penes subiecta, quia species est passio medii, nec locus ibi requiritur nisi locus medii.'—*D.M.S.* 504.[3] Again in *Op. Mai.* ii, p. 72 he writes, 'Et ideo non est ⟨species⟩ motus localis, sed est generatio multiplicata per diversas partes medii, nec est corpus quod ibi generatur, sed forma corporalis non habens tamen dimensiones per se, sed fit sub dimensionibus aeris: atque non fit per defluxum a corpore

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[1] It is unfortunate that Bacon uses 'species' both for this spiritual activity, which he admits involves deliberation and choice, and for the activity proceeding from the innate tendencies of bodies—cf. *C.N.* 108: 11. It is also to be regretted that this same term is applied to such widely different processes as animate and inanimate generation.

[2] Matter by itself does not generate species but only through the action of the composite or form.

[3] Unless otherwise stated, the references throughout this work are to Brewer's edition of the *Opus Tertium*.

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[1] When Aristotle and Averroes say that species have a spiritual *esse*, Bacon thinks they take 'spiritual' to be synonymous with 'imperceptible'—*Op. Mai.* ii, p. 43.

[2] Bonaventura in *Hex.* xi, 23, Quaracchi ed., vol. 5, p. 383 writes, 'Non ⟨est species⟩ de materia aeris quia cum non dicat essentiam sed modum essendi, sufficit ut habeat principium materiale et principium effectivum'.

[3] No comment other than the footnote of Dr. Bridges is necessary—'This passage, and indeed the whole chapter, contains striking anticipations of modern physical theories as to propagation of force. If the word *wave* or *undulation* were substituted for *ray* or *species*, little would need changing.'

luminoso, sed per eductionem de potentia materiae aeris.'[1] The modified medium serves the purpose of providing both the necessary distance *per essentiam* between the mover and that which is moved (for no form acts on the matter of which it is the act—*C.N.* 83: 9), and the necessary contact *secundum virtutem* (for no agent can act at a distance or through a vacuum—*Op. Tert.* pp. 114, 153 f.).

Bacon regards the species of every agent as being propagated equally in all directions (*C.N.* 36: 18 and *Op. Mai.* i, p. 117), or, as Grosseteste has said, 'per lineas et angulos, et figuras in quibus natura delectatur operare'. They continue in a straight line as long as the medium through which they are passing is of one density; otherwise, they are refracted either towards the perpendicular drawn to the surface of contact or away from it, according as the medium entered is more or less dense. If the medium encountered be too dense, reflection occurs—*C.N.* 24: 19, *D.M.S.* p. 458, and *Op. Tert.* p. 110. Similarly, as in the case of light, these rays are not propagated instantaneously, but require an imperceptible time[2]—*C.N.* 44: 7, *Op. Mai.* ii, pp. 68–71.

Fortunately for the safety of the universe, the Divine ordinance has decreed that not every creature shall be able to bring its species to complete actualization, else the superior and more active spirits and the celestial bodies would convert all inferior beings into their own nature. Only the four elements and their qualities, together with light, can fully actualize their species; the higher orders may have the aptitude for so doing, but they have not the power, just as a blind man may have the aptitude for seeing and yet not be able to see—*C.N.* 21: 4, *Op. Mai.* ii, p. 450 f. Even the radio-activity of the elements is limited, for the ray being generable must also be corruptible. Its weakness as an incomplete *esse* also renders it incapable of conserving itself, especially in face of the susceptibility of the recipient to species of a contrary kind, and its stronger affinity for species of its own nature—*D.M.S.* p. 548.

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[1] That this propagation of light is to be regarded as a type of all other radiated forces is clear from a passage in *D.M.S.* p. 458: 'Ideo universaliter omnem multiplicationem vocamus radiosam, et radios dicimus fieri, sive sint lucis, sive coloris, sive alterius. Et alia ratio est huiusmodi nominationis; quia, scilicet, magis manifesta est nobis multiplicatio lucis quam aliorum, et ideo transumimus multiplicationem lucis ad alias.'

[2] *In Op. Mai.* ii, p. 68 f. Bacon opposes Aristotle and Alkindi in their theory of the instantaneous propagation of light by Aristotle's own statement in VI *Phys.* (Cf. vi, S. 1, c. 3, f. 118^{r}b f.) to the effect that no finite power acts in an instant.

The foregoing interpretation of generation applies to equivocal as well as to univocal generation, though in the former case, e. g. the generation of heat from light, the assimilation of the recipient is due more to the action of the species itself than to the agent. Because many effects arise from the species (*C.N.* 45: 23 and 24: 2), equivocal generation is just as prevalent as univocal generation, its prevalence being promoted by the diversity among recipients, for (as Grosseteste says) the same power of the sun dries mud, dissolves ice, and acts on the senses and on the intellect of man—*D.M.S.* p. 417 and *C.N.* 22: 18.

TYPES OF BECOMING

Besides creation, Bacon's theory of which adds nothing to that of Grosseteste or of Thomas of York,[1] generation confers existence upon things. 'Uno modo generatio fit per simplicem conversionem, et hec est generatio elementorum, scilicet quando unum transmutatur in alterum, ut aer in ignem; secunda est per mixtionem elementorum, et talis generatio est mixtorum, ut impressionum; tertia est generatio per propagationem, scilicet seminis decisionem, et hoc est animalium perfectorum; 4. est per putrefactionem, et hoc est animalium imperfectorum ut vermium et huiusmodi'—*Quaest. Met.* xi, p. 10: 24. Leaving the first and second inanimate types of generation to be considered under the section on elements and mixtures, let us turn to Bacon's elaboration of animate generation.

Like all varieties of becoming, animate generation, which is generation in its strict sense (ii *Phys.* p. 67: 20), involves a material, a formal, an efficient, and a final cause[2]—ii *Phys.* p. 73: 16 f. The material cause is the female semen, which develops into the body of the offspring—*C.N.* 276: 5. The efficient cause initiating the development is the male semen produced from the surplus food—*C.N.* 123: 22. Bacon remarks that this origin of the semen, postulated by Aristotle and Avicenna, is doubted by many who, on account of human consanguinity and kinship, wish to make it a part of the substance of the body. This suggestion he rejects, saying that after the conversion of the food into the body, there can be no separation from the body or one of its parts without pain, and, therefore, since the emission of the semen is not accompanied by pain, it cannot be of the substance of the body. Besides, were it separated from the bones or flesh or any part of the body, it would be a part of these things and not semen. On the other hand, were it generated from these organs, it could not be a part of them, since their corruption would have to precede its generation. Bacon thinks that the affinity and consanguinity from the paternal side need not raise the question of the origin of the semen, since they can be credited to the transmitted spirits, and although these are not substantial parts of the body of the offspring, they are 'quidam vapores confortantes corpus'. From the maternal side, as Aristotle and Avicenna claim, natural affinity is saved by the surplus blood which resembling the bulk, contains *in potentia* flesh and bones—*C.N.* 279: 24.

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[1] Perhaps it should be mentioned that in IV *Phys.* 170: 10 Bacon regards 'locus' as coming into existence through concreation. '⟨Locus⟩ non exivit in esse in se, sed cum altero, scilicet cum corpore primo mobili, quod est celum.' In IV *Phys.* 237: 24 he also says that although the *esse* of time is the measure of movement and consists in succession, as far as its *essentia* is concerned, time is concreated.

[2] For the subsidiary causes that enter into the production of a thing, cf. *C.N.* pp. 124–34.

In addition to the male semen as the particular efficient cause, animate generation has a universal efficient cause in the celestial bodies, especially in the sun, whose influence continues for a longer time than that of the semen. 'Et diucius influit sol quam pater, quia pater non continuat generacionem usque in finem sicut sol, set solum incipit per decisionem seminis, et sol facit plures disposiciones quam pater, propter hoc quod eius accio continuatur usque in finem generacionis; et ideo forcius et plus et vehemencius agit, et non solum ad esse prolis, set ad continuacionem sui esse. Et sol eciam plus influit, quia cause particulares sunt instrumenta eius et debilius agunt respectu cause universalis, quam instrumenta et organa respectu artificis, sicut Aristoteles vult *De Generacione*[1]—*C.N.* 125: 4. Nevertheless, the particular rather than the universal agent is said to produce the offspring because it is animated and because it resembles the offspring in species—*C.N.* 276: 30.

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[1] Cf. De Gen. An. ii, c. 4. f. 224^{r}b.

The species constituting the resemblance between parent and offspring is the formal cause of generation, but of this cause with its intricate problem of how one species can be shared by two individuals Bacon does not treat further.

The final cause is, of course, the offspring. If it is of a different species from the parents, it is called a monster, and is to be accounted for by a mixture of the semen of different animals, by an unusual action of the celestial bodies,[1] or by the influence of the parental imagination on the embryo—II *Phys.* p. 125 f. If the abnormality is found only in the number of members, e. g. the fingers, it is to be explained either by a superfluity or a lack of matter, according as the number is greater or less than the normal—*C.N.* 134: 25 and 302: 36. Abnormalities occur much more frequently in the lower grades of animate beings, for nature is more solicitous about animals than plants, since in animals a defect is more noticeable and more likely to hinder their operations—*C.N.* 135: 25, cf. II *Phys.* p. 129 f.

Generation by putrefaction is the second way in which animals can be generated, but this process is limited to the inferior grades. It resembles the generation of higher animals inasmuch as it involves a material, a universal efficient, and a final cause, the first being the putrified flesh, the second the celestial bodies, and the third an inferior animal; but it differs because the universal efficient cause lacks a co-operating particular generator—*Quaest. Met.* xi, p. 10: 32 and p. 13: 15. Bacon ignores the formal cause probably because in generation by putrefaction a transmitted specific form is deficient. Were the possibility of this type of generation questioned on the ground that the power of a heavenly body being inanimate cannot produce a nobler animate nature because every generator is nobler than that which is generated, Bacon replies that the power of the celestial body includes the power of its animate movers, that is, of God and of an angel—*C.N.* 308: 27.

Inferior animals may be generated in a third way to which the term 'budding' is applied to-day. This type applies only to segmented animals which, when divided, produce new individuals. The higher animals, though also possessing a soul or form that is *quodammodo corporalis* because educed from the potency of matter, cannot be reproduced by division, since their nobler powers are opposed to living after a division of their body, for while they are generated with difficulty, they are corrupted with ease—*C.N.* 306: 25 f.

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[1] The celestial bodies alone account for monstrosities in plants, for the plant being stationary, the masculine and feminine powers must exist in the same individual and hence no mixture of semens is possible—*C.N.* 276: 14 and 136: 3.

In addition to creation and animate generation, there is another variety of becoming, namely, alteration. 'Alteracio est quando res manet in sua substancia, tamen transmutatur in accidentibus, ut cum Socrates sanus fit eger, vel de calido fit frigidus'—*C.N.* p. 2: 25. Consequently the distinguishing features about this type are that (*a*) the educed form is an accident, and (*b*) the matter, or that which remains throughout the becoming, is a corporeal substance—*D.M.S.* p. 549; *C.N.* 241: 13 and 242: 5. Because the matter is something already formed, or an *ens in actu* (cf. II *Phys.* p. 83: 18 f.), it is said to be in *potentia propinqua* rather than *remota*, and hence movement in artificial generation is 'secundum quod est in potencia ad formam statue', and not 'secundum quod est in actu, scilicet . . . sub forma eris'—*C.N.* 139: 20 f. Therefore writes Bacon, 'Forma artificialis ipsi materie ratione qua artificialis substantialis est, sed ratione qua naturalis est materia, est ipsi materie accidentalis'—II *Phys.* p. 61: 25.

In addition to all these varieties of becoming, Bacon has types of change which perhaps ought to be called modifications rather than becomings; these include local movement, and increase and diminution in quantity (cf. *C. N.* 2: 15 f., *D.M.S.* 503), but since they involve only change *in* accidents and not even *of* accidents, they will be disregarded here.

MATTER IN ITS STATIC ASPECT

Having considered matter and form under the dynamic aspect, we have dealt with the third and fourth of the contemporary uses of 'matter' enumerated by Bacon in *C.N.* p. 60 f. These uses are:

(1) Matter is that which is the subject of action, just as wood is called matter in reference to the action of the carpenter.

(2) Matter, in its most proper sense, is the essence that with form constitutes the composite, and thus it exists in every created substance.

(3) Matter is the subject of generation and corruption, and has the property of being an incomplete and imperfect thing in potency to specific being.

(4) Matter is the subject of alteration because it receives contrary accidents.

(5) Matter may be regarded as an individual in relation to the universal, the universal being founded in its individual as in a material principle.

(6) Matter is the name for that which is gross and vile, in which sense, earth is said to have more matter than fire.[1]

The first use has been covered by what we have said already of the fourth. The sixth can be ignored, and the fifth will be touched upon under the question of individuation. Let us turn, then, to the second use, which brings us to Bacon's consideration of static matter as abstracted from form to which in nature its comparison is more essential than that of substance and accidents—*D.M.S.* p. 423.

In this consideration Bacon has much that agrees with Thomas of York—matter *secundum essentiam* is ingenerable and incorruptible, being generable only *per accidens* or *per suam privationem*—I *Phys.* p. 49: 28; matter comes into being through creation—*C.N.* 67: 13; matter is the subject of contraries desiring always the new and therefore indirectly desiring the corruption of its present form—*C.N.* 113: 9; matter seeks its own good—*C.N.* 81: 6; matter is knowable only by analogy with form—*Quaest. Met.* xi, p. 2: 8; matter, like form, may be equivocally called substance, since both are parts of the substantial composite—*C.N.* 50: 26; matter, though never existing without form, has its own true nature and essence, and therefore contributes to the composite—*Comp. Stud. Theol.* pp. 50, 66.

This last theory is important inasmuch as it is a particularly Franciscan tenet, and although Bacon has not devoted special sections to the problem, he often declares his view. 'Materia est aliud per essenciam a forma, ex quibus tamen fiunt omnes

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[1] In *C.N.* p. 62 he gives the uses of 'form' corresponding to the last five uses of 'matter'. It may be noted that in the uses of 'matter' Bacon has ignored the primordial matter of Grosseteste. Only in gloss no. 5 on *Sec. Secr.* p. 127 does he mention 'hyle', describing it as, 'materia corporalis omnium rerum corporalium et est ante commensuracionem quantitatis, ante, scilicet, in ordine nature non temporis, vel ante commensuracionem quantitatis determinate alicuius corporis specialis ut ante celum et elementa quatuor et mixta.'

substancie. Materia enim est substancia que differt per essenciam ab omni substanciali et accidentali forma, sicut Aristoteles docet 7° *Metaphisice*'[1]—*C.N.* 14: 31. Again, '. . . ens in potencia, quod vocatur non ens respectu entis in actu specifico, non est purum extremum contradiccionis, quia pura negacio est non ens, quod neque est actu neque in potencia, et tale non ens non est subiectum generacionis, nec ab eo itur ad ens, nec est aliqua transmutacio naturalis a non ente sic ad ens. Creacio enim est a non ente puro ad ens, set generacio est a non ente in actu specifico, quod est ens in actu generali'[2]—*C.N.* p. 247: 7. The 'in actu specifico' of the quotation will elucidate Bacon's remark in the early *Quaest. Met.* xi, p. 8: 13—'Materia secundum quod habet esse sub forma . . . est actu . . . et non de ipsa in esse essentie et absolute; hoc enim modo est in potentia.'

Again, Bacon, like Thomas of York, rejects the theory of the numerical unity of matter in all things—a theory that he refers to in the *Opus Tertium* (p. 121) as one of the worst in philosophy, and as one whose rejection is important for the knowledge of natural things—*C.N.* 65: 13. The supporters of this theory, he tells us, do not deny that the matter of different things differs *secundum esse*, but they maintain that it is one *secundum essenciam*. Bacon rejects such a distinction between existence and essence, claiming that existence is the *propria passio* of essence, and that, as such, it is numbered according to the number of its subjects. Therefore, the essence of matter will be numbered according to its different existences, and since it is acknowledged that all existences are not one, the essence of matter will not be one—*C.N.* 55: 2 f.; *Op. Tert.* pp. 122, 124.

Bacon's second objection is that if, in the many, matter is one in number, it would be infinite, for, as Aristotle says, if something that is one is able to be in two things, it is able to be in three or four or in an infinite number. But were matter infinite, it would be equal to God and would be God. Hence the numerical unity of matter would lead to Pantheism. This cannot be avoided by saying that the essence of matter need not be infinite, but only its potency, which is passive and not identifiable with God Who is active. Such a proposal ignores the fact that no accident is superior to its subject, and that, therefore, if potency is infinite, matter will be infinite—*C.N.* 55: 20 f.; *Op. Tert.* p. 127; *Op. Mai.* i, p. 145.

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[1] Cf. vii, S. 2, c. 1, f. 75^{r}a.

[2] I take it that 'in actu generali' is Bacon's way of saying what Augustine meant by referring to matter as 'prope nihil'.

A third reason for rejecting the unity of matter is the belief that it would destroy the possibility of generation. The existence of a substantial form requires a certain predisposition in matter, since the human form, for example, could not be received into the matter of an ass. Hence if there is only one matter, there is only one form, and then all things are identical—*C.N.* 65: 14; *Op. Tert.* p. 121. Further, if matter is not specified, we cannot agree with Aristotle that a new composite is generated and not merely a new form—*Op. Tert.* p. 122.

Fourthly, opponents of the plurality of matters derive their objections from the contemporary mistranslations of Aristotle. If Aristotle says (*Met.* vi [1]) that only act divides, they conclude that, since form and act are the same, only form divides. Bacon points out that Aristotle does not say that act alone divides, but simply, that act divides, and he adds that this is said because division by form is more obvious, though strictly both matter and form divide. Further, act is not synonymous with form; it may be applied also to operation, though in that case it is more properly termed 'actus secundus'. Lastly, act may be considered in opposition to potency, as when we say that a thing actually exists, and this is the meaning of 'act' in Aristotle's statement—*Op. Tert.* p. 125.

Perhaps a more important reason for the supposition that matter is one in all things is found in another statement in Aristotle to the effect that all things are one according to matter but different according to form. Bacon points out that in V *Met.*[2] Aristotle explains his meaning by saying that those things which are the same in genus are the same in matter and vice versa. Consequently, *materia naturalis*, which is the subject of generation, is one and the same inasmuch as it is a genus common to contrary species, but it is not one inasmuch as it is the second factor in the composite. In the former sense, Averroes holds matter to be one in all things—*C.N.* p. 63; *Op. Tert.* p. 128.

From the above it is clear that for Bacon, as for Thomas of York, the unity of matter is only a logical one, since matter, as it exists in nature, is always as divided and specified as are forms and composites. The last remark is important, for it does not bear the common Scholastic meaning that matter is specified by forms and composites, but only *together with* forms and composites. Its diversities arise 'per alias differencias substanciales additas super essenciam materie . . . quare habet differencias substanciales specificas per quas dividitur et specificatur, sicut forma et compositum. Nec valet dicere quod ista genere diversa causentur a diversitate formarum specificarum, quia non loquor de causa effectiva extrinseca istorum esse'—*C.N.* 57: 15. Matter has these differentiations 'in se et secundum se' and form is not the cause of them any more than matter is the cause of diversity between specific grades of forms. 'Nam non solum formae sunt aliae per essentiam in diversis speciebus, ut in lapide et stella, sed ipsae materiae sunt diversae in natura specifica secundum se . . . forma differt a forma secundum se, et materia a materia per suas naturas proprias, ita quod diversitas materiae non est a forma, sicut nec e converso. . . . Unde, sicut substantia incorporea et corporea differunt penes has differentias, corporeum et incorporeum, sic materia corporea et incorporea, quae sunt species materiae, differunt per has differentias, quae sunt corporeum et incorporeum; et similiter forma corporea et incorporea'—*Op. Tert.* p. 126.

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[1] Cf. vii, S. 2, c. 15, f. 93^{v}b.

[2] vi, S. 1, c. 28, f. 66^{r}b.

Bacon's primary reason for positing such a diversification in matter seems to be the traditional Aristotelian theory that every form requires a corresponding disposition in matter. Consequently, he supposes that the *forma generis generalissimi*, or the *forma universalis*, which places creatures in the realm of being, will completely satisfy the appetite of *materia prima*, and that further formal differences, such as *forma corporalis*, *forma corporalis non celestis*, *forma mixti*, *forma animati*, and *forma animalis*, will require corresponding matters—*C.N.* 58: 7 f.; *Op. Tert.* p. 122 f. That the most general form does completely actualize the potency of its primary matter is clear because 'non potest tolli per aliquam corrupcionem a materia sua, ergo complet eam sicut in celestibus', and so for none of the succeeding forms can *materia prima* supply a potency.

Bacon's second reason is based on his theory that some type of composition must be common to all composites, for of all composites, whether spirits, celestial bodies, mixtures, or elements, '*substancia generalis*' is predicated, and this '*substancia*' must be composite because 'simplex non predicatur de compositis predicacione formali et inherencie et in abstraccione, ⟨sicut⟩ substancia predicatur de omnibus compositis predicacione formali et inherencie et in abstraccione'—53: 2. Hence Bacon holds that if a 'compositum specierum specialissimarum per differencias compositas additur ad genus generalissimum usque ad ultimum compositum', matter as well as form must have graded differentiations, else, contrary to Aristotle, forms alone, and not composites, will be generated—*C.N.* 58: 25 f. Besides, Aristotle asserts that in generation the incomplete and the complete are the same *per essenciam*; therefore, argues Bacon, 'materia et forma specifica differunt per essenciam, ergo materia generis non est in potencia ad formam specificam set ad materiam specificam. Item forma generis est in potencia ad formam specificam, ergo materia generis est in potencia ad materiam specificam. Item una forma dicitur materialis respectu alterius, ut incompleta respectu specie, ergo similiter una materia poterit dici formalis, scilicet, completiva et specifica, respectu materie generis'—*C.N.* p. 59: 22.

Finally, the elaboration of matter and form is suggested by Aristotle's statement in VII *Met.*[1] that Socrates is composed of this body and this soul, and man of universal soul and universal body, for since body is the matter of man and soul his form, universal man will be composed of universal matter and universal form; likewise, his genus 'animal' will have a universal matter and form, and so on—*C.N.* 60: 8. Hence Socrates, inasmuch as he is a man, will have all grades of composition from *substancia composita universalis* to *animal racionale*, and inasmuch as he is Socrates, he will have all grades from *hec substancia singularis* to *hoc animal racionale*: both grades actually exist in him, as in all other beings, as two different lines of development, and must not be thought of as differentiations *secundum modum loquendi*—*Op. Tert.* p. 123; *C.N.* 93: 9 f. These elaborations of matter, form, and the composite are represented by the following diagrams (*C.N.* pp. 87–9).

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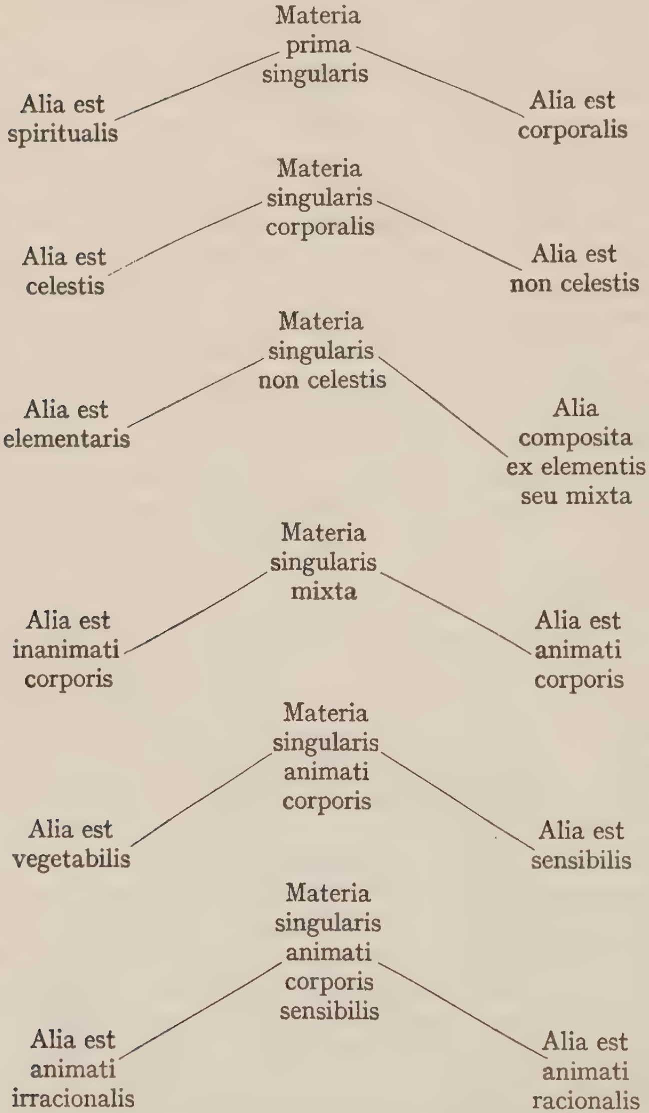
[1] vii, S. 2, c. 13, f. 89^{v}b.

DIVISIO MATERIE PRIME SINGULARIS


Materia prima singularis
Alia est spiritualis
Alia est corporalis
Materia singularis corporalis
Alia est celestis
Alia est non celestis
Materia singularis non celestis
Alia est elementaris
Alia composita ex elementis seu mixta
Materia singularis mixta
Alia est inanimati corporis
Alia est animati corporis
Materia singularis animati corporis
Alia est vegetabilis
Alia est sensibilis
Materia singularis animati corporis sensibilis
Alia est animati irracionalis
Alia est animati racionalis

Materia singularis animati racionalis est materia huius hominis singularis, ut Sortis,[1] et sic terminatur linea singularium.

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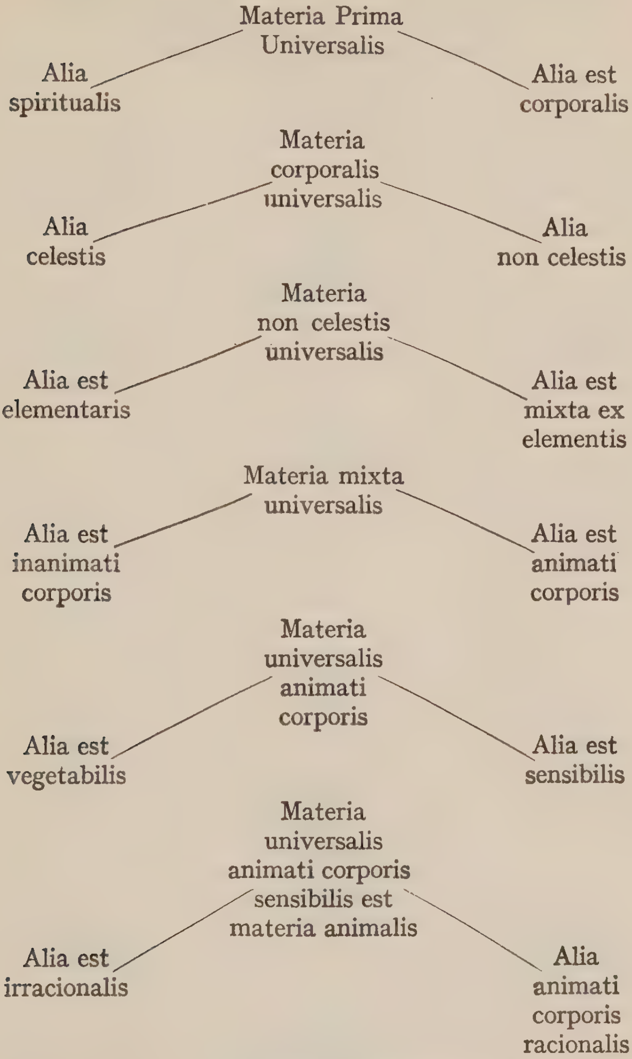
[1] 'Sortis', of course, means Socrates.

DIVISIO MATERIE PRIME UNIVERSALIS


Materia Prima Universalis
Alia spiritualis
Alia est corporalis
Materia corporalis universalis
Alia celestis
Alia non celestis
Materia non celestis universalis
Alia est elementaris
Alia est mixta ex elementis
Materia mixta universalis
Alia est inanimati corporis
Alia est animati corporis
Materia universalis animati corporis
Alia est vegetabilis
Alia est sensibilis
Materia universalis animati corporis sensibilis est materia animalis
Alia est irracionalis
Alia animati corporis racionalis

Materia animati corporis racionalis est materia hominis, et ibi est status in linea materiarum universalium cui respondet linea singularium materiarum primo subtracta ante esse universalium set minus est ab intellectui[1] nostro debili.

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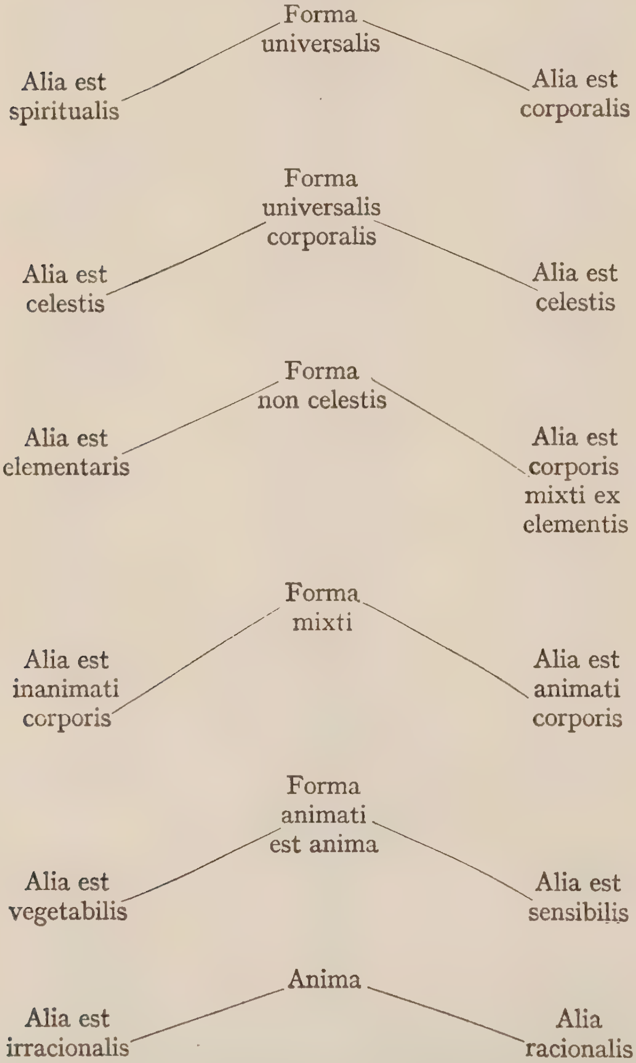
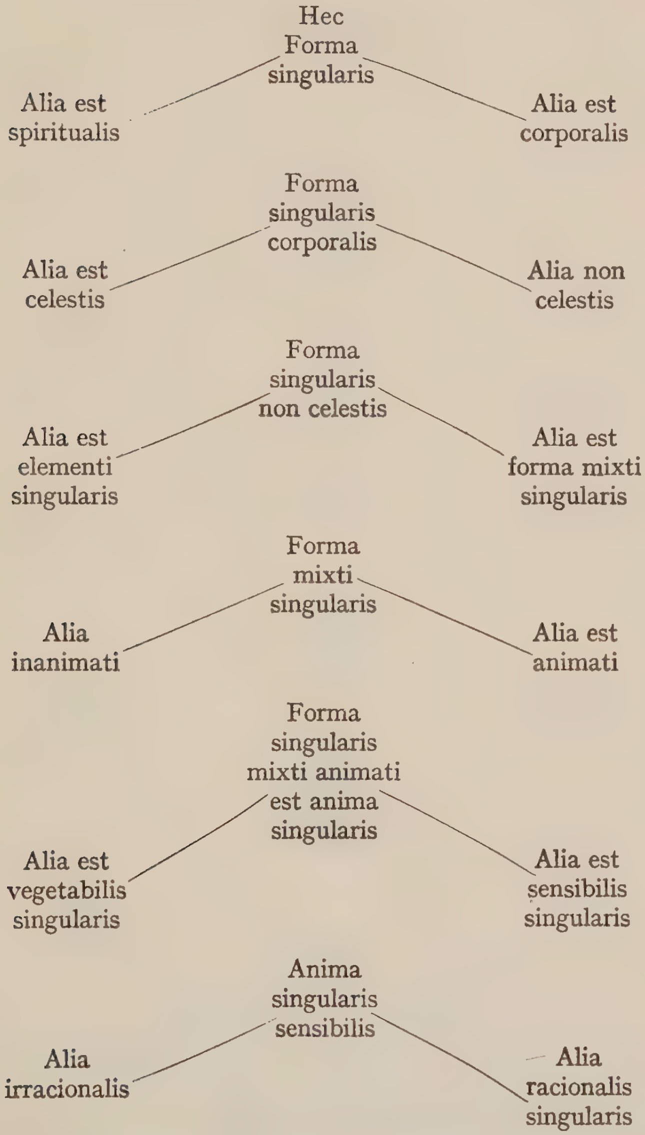
[1] Steele's edition has 'intellectuali'.

DIVISIO FORME UNIVERSALIS


Forma universalis
Alia est spiritualis
Alia est corporalis
Forma universalis corporalis
Alia est celestis
Alia est celestis
Forma non celestis
Alia est elementaris
Alia est corporis mixti ex elementis
Forma mixti
Alia est inanimati corporis
Alia est animati corporis
Forma animati est anima
Alia est vegetabilis
Alia est sensibilis
Anima
Alia est irracionalis
Alia racionalis

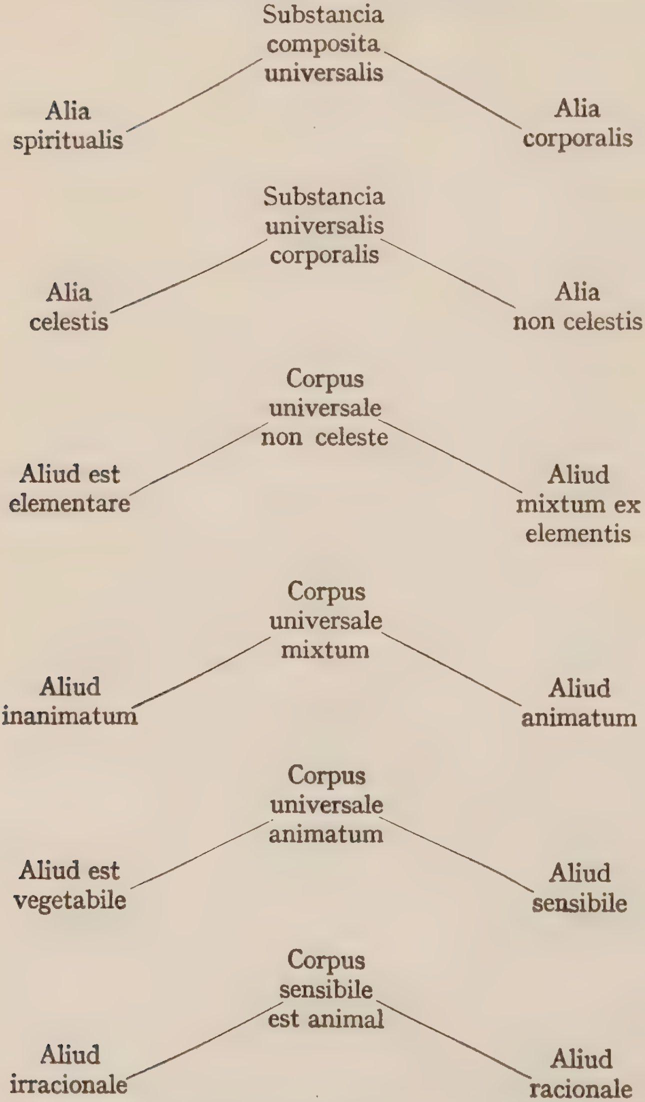
Anima racionalis est anima hominis et hec est linea universalium formarum cui subtendi debet linea singularium in hunc modum.

DIVISIO FORME SINGULARIS


Hec Forma singularis
Alia est spiritualis
Alia est corporalis
Forma singularis corporalis
Alia est celestis
Alia non celestis
Forma singularis non celestis
Alia est elementi singularis
Alia est forma mixti singularis
Forma mixti singularis
Alia inanimati
Alia est animati
Forma singularis mixti animati est anima singularis
Alia est vegetabilis singularis
Alia est sensibilis singularis
Anima singularis sensibilis
Alia irracionalis
Alia racionalis singularis

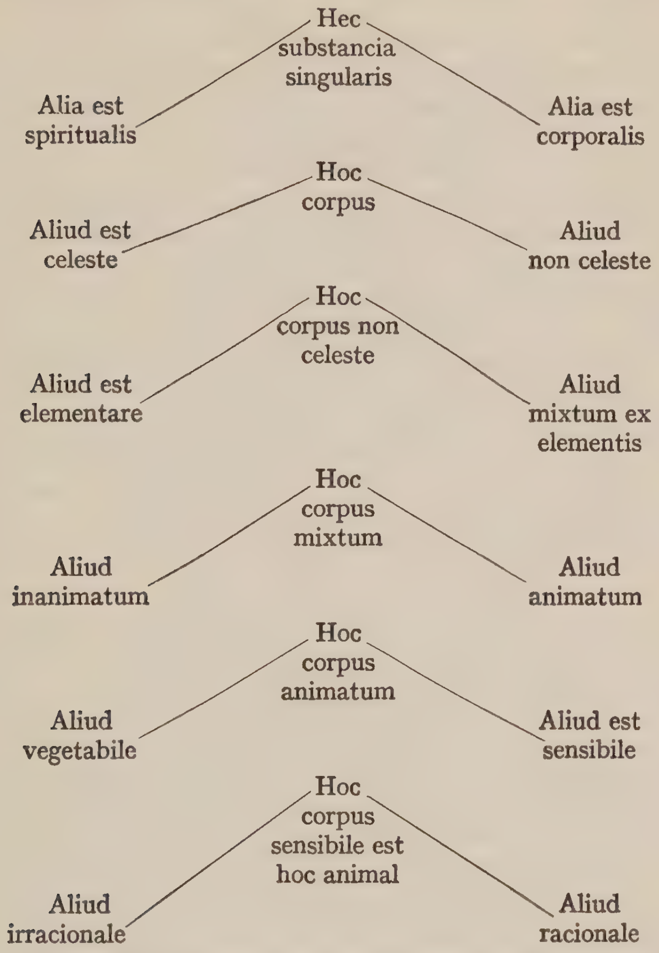
Anima racionalis singularis est huius hominis singularis, ut Sortis.

DIVISIO SUBSTANCIE COMPOSITE UNIVERSALIS


Substancia composita universalis
Alia spiritualis
Alia corporalis
Substancia universalis corporalis
Alia celestis
Alia non celestis
Corpus universale non celeste
Aliud est elementare
Aliud mixtum ex elementis
Corpus universale mixtum
Aliud inanimatum
Aliud animatum
Corpus universale animatum
Aliud est vegetabile
Aliud sensibile
Corpus sensibile est animal
Aliud irracionale
Aliud racionale

Animal racionale est homo, et hic est status in linea universalium, cui subtendi debet linea singularium compositorum in hunc modum.

DIVISIO SUBSTANCIE COMPOSITE SINGULARIS


Hec substancia singularis
Alia est spiritualis
Alia est corporalis
Hoc corpus
Aliud est celeste
Aliud non celeste
Hoc corpus non celeste
Aliud est elementare
Aliud mixtum ex elementis
Hoc corpus mixtum
Aliud inanimatum
Aliud animatum
Hoc corpus animatum
Aliud vegetabile
Aliud est sensibile
Hoc corpus sensibile est hoc animal
Aliud irracionale
Aliud racionale

Hoc animal racionabile est hic homo, ut Sortes.

From these diagrams it can be seen that the *materia naturalis* involved in generation is already a highly composite nature being made up of *materia prima*, *materia corporalis*, and *materia non celestis*; and since these matters have always their corresponding form, that which is really the subject of generation is the incomplete composite, *corpus non celeste*—*C.N.* 72: 14, 78: 19, and 85: 1. This incomplete composite Bacon likens to a genus in potency to specific differentiae—*C.N.* 72: 5; *Op. Tert.* p. 128.

The diagrams also show that in addition to this composite natural matter Bacon posits two other types in the universe. His view is succinctly stated in I *Phys.* p. 46: 30, 'Sicut auctor *Fontis Vite* distinguit triplicem materiam, sic . . . distinguimus: est enim materia spiritualis, sensibilis et media; spiritualis est que ⟨non⟩ subjacet quantitati, ⟨nec⟩ motui, nec contrarietati, et hec est in spiritualibus et intellectivis et animabus; media que subiacet quantitati, motui, set non contrarietati, et est in celestibus; sensibilis est que subiacet omnibus istis, scilicet quantitati, motui, contrarietati, et hec in generabilibus et corruptibilibus'[1]—cf. *Quaest. Met.* xi, p. 13: 33. In adopting these three types of matter, Bacon closely resembles Thomas of York, but whereas Thomas makes the first type to be a potency for existence and change, and therefore something common to all beings, Bacon more strictly follows Avicebron and regards it as a differentiation of *materia prima* or *materia in genere generalissimo*—*C.N.* 65: 22 f.

FORM IN ITS STATIC ASPECT

Form plays a much smaller role than matter in Bacon's natural philosophy, for as he says in II *Phys.* p. 62: 27, '⟨Materia et forma⟩ sunt principia entis transmutabilis, et hoc modo considerantur a physico, sed non equaliter, quia materia principaliter et forma per reductionem ab ipso naturali considerantur: unde forma propter materiam, quia materia est prima natura que est principium motus stans fixum et omnem transmutabilem firmans'.[2] His more general remarks about form add little to what has been said by Thomas of York: thus he holds that form is prior to matter in the sense that it is the term of generation and that to which the diversity of composites is chiefly due—*C.N.* 267: 11 and 53: 31; form is that which perfects the material principle—*C.N.* 122: 11; form is the end that moves the efficient cause—*C.N.* 123: 3; form is that through which the composite acts—*C.N.* 120: 26. In brief, Bacon's agreement with Thomas is summed up in the statement that form is that which gives being, that which is the principle of operation, and that which is the principle of knowledge—II *Phys.* p. 78: 35.

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[1] Duhem in *op. cit.* t. V, p. 380 says that the first series of *Quaestiones* on the *Metaphysics* also shows marked traces of the *Fons Vitae*, and he adds, 'L'admiration que Guillaume d'Auvergne professait pour Avicébron n'était pas isolée; elle trouvait un écho dans l'enseignement de l'Université de Paris.' The influence of Avicebron on Thomas of York has been indicated in the previous pages.

[2] In the same passage he asserts that just as the physicist reduces all causes to the material cause, so the mathematician regards the efficient cause as the most important.

With regard to the production of natural forms, it will have been surmised from our discussion of the active potency in matter that Bacon, like Thomas, understands forms to be generated in the sense that they are educed from that potency into complete being by the activity of universal and particular agents. Consequently, in answering the question whether forms are produced absolutely *ab intrinseco* or *ab extrinseco* he says, 'Forma naturalis, quantum ad illud mediante quo exit in esse, ab extrinseco est, immittitur enim virtus ab agente extra. Quantum autem ad illud quod producitur in esse, est ab intrinseco [1] omnino, non sicut possuit Anaxagoras, ita quod sunt ibi in actu, set in potentia activa, que est forma incompleta que, excitata per illud quod immittitur extra ab agente universali particulari vel utroque, fit forma rei completa'—*Quaest. Met.* xi, p. 131: 37; and later (*ibid.* l. 33), 'Per generationem nichil additur de puritate essentie forme, set solum additur esse completum essentie illius forme'.[2]

In discussing this *exitus* of forms Bacon raises a new question, namely, does the generated form appear instantaneously? It must be taken for granted, he thinks, that there is a time, A, in which a thing is not white, and a time, B, in which it is white. Now between these times, as Aristotle shows, there is only one instant, C, which is at the end of A past and the beginning of B future, and it is at this instant that the whole substantial form must be said to come into being and the not-white to give place to the white. There need be, then, no time in which the thing is neither white nor not-white, or both white and not-white, for such a view is based on the error of arbitrarily dividing time, which is a continuous quantity, and making some instant to be the last in which the thing is not white—*Op. Tert.* p. 145 f. Hence Bacon declares, 'Res permanens habet aliquod instans in quo *finaliter* et *complete* est . . . et ideo contingit dicere, "nunc primo est et prius non fuit"'—*C.N.* 261: 15 f.; and again, 'Forma substantialis inducitur *tota* in instanti'—*ibid.* 241: 2. The necessity for italics is supported by his theory expounded in *Quaest. Met.* xi, p. 129: 13 f.—'Contingit loqui de exitu forma naturalis dupliciter; aut quoad ultimam inductionem eius in materia preparata et disposita, et sic verum est quod sit in instanti; comprehendendo ultimum eius exitum et transmutationem precedentem per quam disponitur materia, et sic non est verum quod fiat in instanti, quoniam preparatio illa sive transmutatio precedens ultimum eius exitum successiva est et in tempore, et potest dici generatio communiter loquendo de generatione prout non solum mutationem, set etiam ut motum sive omnem transmutationem precedentem esse naturalis forme nominat.' It is from the latter point of view that he writes in *C.N.* 245: 17—'Exitus materiae de potencia ad actum qui est generacio . . . fit successive, et sit motus non mutacio'. Such successive generation, he thinks, may be deduced also from Aristotle's doctrine that no finite power acts in an instant—*C.N.* 245: 27 f.

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[1] The sense requires this and not the 'extrinseco' in Steele's edition.

[2] This solution is so much like that of Thomas of York that we must suppose that Bacon either had before him Thomas's work or was copying directly from Averroes. In view of a further marked resemblance between Bacon's *Quaestiones* and Thomas of York's treatment of the Divine knowledge of creatures it seems as if the first supposition is truer.

The terrestrial form that is produced by generation and gives to the new composite its actuality is not only a unique individual form expressing the peculiar essence of the individual, but also a universal form serving as a basis for assigning the individual to one of the specific groups in the universe. 'Duo esse habet individuum; unum est absolutum per principia que ingrediuntur eius essenciam, et aliud est comparatum secundum quod convenit cum individuo sibi simili'—*C.N.* 102: 19. The universal form will be considered first, for unless that exists nothing can be said about the individual form.

In raising the problem of universals Bacon enumerates five contemporary views (1) Universale non est nisi in anima, (2) Universale est in rebus per animam, (3) Universale sub racione universalis est in anima,[1] licet secundum illud quod est, sit in singularibus,[1] (4) Universale sit solum in singularibus et non dependeat ab anima aliquo modo, and (5) Universale nichil est nec in anima nec in rebus—*C.N.* 101: 34.

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[1] I have substituted 'anima' for the 'rebus' of Steele's edition. This is warranted by the interpretation of the theory indicated in Bacon's refutation of it.

The first theory, which is based on Aristotle's statement in II *De An.*[2] that we understand when we wish because universals exist within us, is rejected for the following reasons: (*a*) if there were no reasoning souls, two stones or two lines would still have something in common, and this common nature is the universal; (*b*) nothing that is outside a thing is able to be attributed to it as inhering; but the universal is thus predicated of singulars, and so cannot be outside them; and (*c*) it is not the stone that is in the soul, but its likeness, and since this likeness is neither predicated of singulars nor is common to them (for each singular makes its own likeness), it cannot be the universal.

Given that the universal does not exist only in the soul, the falseness of the second theory, based on many passages in Avicenna's *Logic* and *Metaphysics* and on Averroes's *De Anima* III [3] where it is said that the intellect makes the universal in things, is clear. The soul does not make universality, but finds it as a constituent in beings. From this it follows that the third theory must be rejected. If the universal is neither in the soul nor produced by the soul, the universal *secundum rationem universalis* is not in the soul. Besides, in everything the *id quod est* and its *racio* exist together, and therefore, where the universal is, the universal *sub racione universalis* will be. Lastly, the universal has being through the operation of nature, but apprehension by the soul does not produce the operations of nature; consequently, it cannot be said to make the universal—*C.N.* 101: 34 f.

The fifth theory is held by some on the grounds that the universal cannot be in things, since whatever is in singulars is itself singular, and it cannot be in the soul because whatever is received is received according to the mode of the receiver, and the soul being singular can receive only singulars. This theory Bacon rejects because it undermines the foundations of nature and of philosophy. If the universal is not in things, all predication is equivocal and we cannot say that Socrates is a man and Plato is a man, for they have nothing in common by participation. If a genus could be said to exist from the point of view of this fifth theory, it would be represented by only one individual. Moreover, the theory contradicts the assumption of Aristotle (IV *Phys.*)[1] that the existence of the universal in the singular is representative of one of the eight modes of being, as well as that of Boethius (*Comm. in Ar. de Interpr.* III)[2] which regards the singular as having a duplex *esse*—an absolute one depending on its own peculiar principles and a relative one depending on its relation to other individuals with which it agrees in specific nature—*C.N.* 105: 35 f.

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[1] This seems to mean that the universal exists only when things are being thought, while the second theory means that things may be classified only for a thinking subject. Cf. *C.N.* 103: 5 f.

[2] ii, S. 4, c. 1, f. 138^{v}a.

[3] iii, S. 2, c. 3, f. 170^{r}a.

The fourth theory, then, must be taken to represent Bacon's view. The universal in the soul is the likeness of the external universal, just as the particular singular species in the soul is the likeness of the external singular—*C.N.* 103: 22. That there must be external principles corresponding to both the universal and the singular natures of things is clear from Aristotle's statement in III *Met.*[3]—'eadem sunt principia essendi et cognoscendi'—*C.N.* 105: 1. The former, as the agreement between several individuals, must have a reality in external particulars, though that reality is not the primary reality of the individual, for the universal exists only *propter singulare*—*ibid.* 124: 7. However, inasmuch as the universal species can be called up at will and is apprehended by contact with singulars, in comparison with which it is more intelligible (for it is being constantly reinforced by members of the group), we can find a reason for the notion that universals are internal and singulars external—*ibid.* 103: 34, 105: 13.

Let us turn now to the absolute individual actuality in a being, an actuality which, as Aristotle has said, is compared to the relative universal actuality as primary to secondary reality. The superiority of the individual to the universal can be supported by the following considerations: (*a*) Nature, which desires always the most perfect, produces the particular and not the universal creature, (*b*) The particular alone ministers to the needs of man, (*c*) God made the world for individuals and not for universal man, and He created and redeemed individuals, (*d*) Avicenna in II *Met.*[1] remarks that the comparison of universal to particular is as accident to subject, for just as a subject is prior in nature to its accidents, so is the individual prior to the universal, and (*e*) Aristotle in I *Met.*[2] maintains that generation, action, and operation are of singulars *primo et principaliter* and of universals *secundario—C.N.* 93: 22 f. Should it be objected that in I *Post. An.*[3] the same philosopher regards the universal as existing always and everywhere, while the singular is here and now, and in II *De An.*[4] as timeless and divine, while the singular is corruptible, Bacon replies that the perpetuity and ubiquity of the universal is derived not from its own dignity but from the succession of singulars in all times and places—*ibid.* 96: 31.

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[1] iv, S. 1, c. 3, f. 60^{v}b.

[2] *Ibid.*, *P.L.* 64: 462.

[3] ii, S. 2, c. 2, f. 22^{v}b f.

Since the individual is the most real thing in the universe, we have now to ask what constitutes its peculiar individual essence, and this is to raise the problem of individuation. Bacon says that three solutions are suggested for this problem: (1) species est tota essencia individuorum, et habet esse solum diversa (*sic*) in eis; (2) materia addita forme universali facit individuum; (3) potencia ad speciem sicut signacionem (*sic*) additur, et sic signatur in diversis [5]—*C.N.* 98: 34.

To the first theory, which some hold [6] to be that of Boethius, Bacon suggests that Boethius merely meant that the specific being could be taken as the whole being of the individual when the individual was compared to other individuals specifically different; otherwise Boethius would not have assigned a double being to individuals (cf. p. 146)—*C.N.* 100: 23. To the second theory,[7] based on Aristotle's remarks in 1 *Ce. et Mun.*[8] that the heavens signify form alone but man signifies form in matter, and in 7 *Met.*[9] that a generator does not generate another being unless in matter, Bacon replies that 'matter' in these instances does not signify the second part of the composite or the subject of generation but the individual nature that sustains the generated species common to both the generator and that which is generated, just as any subject might be said to be the matter in which accidents exists—*C.N.* 100. To the third theory, as likewise to the two previous ones, it must be objected that the solution is impossible because it supposes that *this* man is made by something added to man, just as man is made by something added to animal, and so confuses the universal and the singular grades of being in a thing, whereas—'postquam linea singularium vadit de incompleto ad completum, sicut linea universalium, patet quod tunc sicut se habet animal ad hominem, sic hoc animal ad hunc hominem, et ideo sicut racionale additum animali facit hominem, sic hoc racionale additum huic animali facit hunc hominem, et ita nec homo nec aliquid additum homini faciet hunc hominem'—*C.N.* 99: 4. Consequently, neither the universal nor something added to it can constitute the entirely different essence of the individual which is related to the universal as subject to accident. 'Ideo principia propria ingrediencia essenciam individui faciunt ipsum, ut hec anima et hoc corpus faciunt hunc hominem, sicut anima et corpus faciunt hominem'—*C.N.* 99: 17. The individuating principles in a thing are just its individual matter and its individual form.

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[1] II *Met.* c. 1, f. 74^{v}b.

[2] Cf. i, S. 1, c. 1, f. 1^{r}b.

[3] i, S. 1, c. 7, f. 148^{r}b.

[4] ii, S. 3, c. 1, f. 133^{v}a.

[5] In the earlier second series of *Quaestiones* on the *Metaphysics* Bacon himself seems to have held something like this third theory—cf. p. 150 *infra.* It will be noted that Bacon has not included Thomas of York's view that form is the principle of individuation or Bonaventura's view that both matter and form individuate.

[6] The contemporary who supported this theory was Henry of Ghent, cf. *Quodl.* ii, q. 8.

[7] For the supporters of this theory cf. p. 80.

[8] i, S. 8, c. 7, f. 29^{r}a.

[9] vii, S. 2, c. 8, f. 83^{v}b.

Having settled the problem in this high-handed manner, Bacon remarks that the whole question of individuation is stupid and one might just as well ask what is the cause of universality.[1] As the Creator has willed universals, so He has willed individuals. '⟨Individuum⟩ habet sua principia singularia ingrediencia essenciam suam, sicut universale habet universalia'—*C.N.* 100: 33 f.

In defending Bacon, Professor Baeumker[2] thinks that in the *Communia Naturalium* Bacon is discussing individuation from the standpoint of the natural philosopher, and that hence he is justified in holding that because individual matter and individual form constitute the individual, they may be regarded as causing individuation. Against this defence three suggestions may be proffered: (*a*) the theories enumerated and criticized by

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[1] In *Parmen.* 132 Plato had pointed out that universals were not self-explanatory. The Scholastics, however, ignored the question.

[2] 'Roger Bacons Naturphilosophie' in *Franziskanische Studien*, 1916, p. 112.

Bacon in opening the problem are not those of natural philosophy; and even if this were Bacon's approach, surely as a physicist he would have to ask himself how it is that many distinct individuals can possess the same specific perfection; (*b*) while (as Professor Baeumker notes) the chapter is headed 'de causa individuacionis', the procedure throughout implies that Bacon was thinking of the problem of individuation in regard to both its remote and proximate causes; and (*c*) the view that individual matter and form are the proper principles of the individual's essence was the inevitable outcome of Bacon's extreme realism which, confusing the logical with the ontological, posited grades in the individual perfections of the singular as well as in its universal perfections. Hence, Bacon's treatment of the problem of individuation—much inferior to that of Thomas of York—seems to justify Professor Little's estimate of Bacon's meagre philosophical abilities[1] and also the opinion of M. Charles[2] that Bacon tends to suppress problems that seem to him useless or insoluble.[3]

Bacon's view of the plurality of forms in an individual, which ought to be discussed at this point, has already been introduced on several occasions. Thus, we have observed that he regards forms as having an incomplete existence in the matter from which they are to be educed (pp. 122, 143), that he attributes to the individual as many forms as are necessary to account for its perfections (p. 134 f.), and that he thinks of each less specified form as matter for the successively specified ones

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[1] *Roger Bacon Essays*, p. 9.

[2] *Róger Bacon: Sa vie, ses ouvrages, ses doctrines*, Paris 1861, p. 203.

[3] Duhem in *op. cit.* t. 5, p. 399 gives a brief account of Bacon's treatment of individuation in the unedited Amiens MS. of the second series of *Quaestiones* on the *Metaphysics*. This account also shows that Bacon never clearly grasped the problem, for while in the third question of Bk. 6 he believes that he is agreeing with Aristotle in regarding matter as the efficient cause of individuation, in the fourth question he holds that both matter and form individuate, and in the fifth question he returns to matter as the cause of individuation, and making individuation and unity to be identical, argues that unity is quantity and proceeds from the nature of matter. Hence, he concludes that beings without matter have no numerical individuation but only specific individuation.

Still another view is found in *Quaest. Met.* xi, p. 133: 36—'Duplex est potentia in materia, scilicet, receptiva et activa; prima non causat diversitatem secundum speciem, set secundum numerum solum, quoniam nunquam materiam derelinquit, que causat diversitatem secundum numerum in rebus; secunda autem, scilicet activa, causat multiplicationem rerum secundum specimen.'

(*ibid.*). As such, Bacon's view is not unusual, but when we recall that a particular being has successive grades not only in its universal form but also in its individual form and that these are existents not to be regarded *secundum modum loquendi*, we are confronted with the dilemma of two unrelated sets of entities in a being. The grades of composition in a being apply either to the universal entities or to the particular ones, but the more general universal entities and the more general particular ones do not seem to be related as an incomplete composite serving as matter for a more specific composite. The dilemma of the two unrelated sets is due to the grades ascribed to the individual form for, without this, the universal series could have been related to the individual form as its matter, and the unity of the individual saved. That this was Bacon's earlier view is implied in the second series of *Quaestiones* on the *Metaphysics*, Bk. 6. There he is discussing whether 'man' expresses the essence of Socrates and he voices the opinion that the word 'man' does not express that which Socrates is inasmuch as he is Socrates, but only in so far as he is man. Inasmuch as Socrates is a certain determined individual, he has a certain additional quiddity. In fact, if the word 'man' expressed the quiddity of the individual, Socrates and Plato would be identical in their nature, quiddity, and essence: but this is false. Therefore, there must be a certain form, *Socrateitas*, in virtue of which the determined essence and particular nature is other than humanity, while the word 'man' expresses the common and universal quiddity of Socrates.[1] A like implication of a form colouring the species and genus is found in *C.N.* 181: 13 where he writes, 'Quia diversitas est a parte forme, et res non solum diversificantur secundum formam in numero, set in specie et genere, erit evum individuum multiplicatum per species et genera non solum per individua.'

THE COMPOSITE

Leaving aside this problem of the unity of the composite, let us pass now to Bacon's more general theories of the composite. Starting from his view that 'res habet tres comparaciones, scilicet ad esse, ad accidens, ad operacionem' (*C.N.* 118: 7), we may briefly summarize these theories, many of which have been introduced in the foregoing pages. Only the composite has 'esse per se in ordine entium' (*C.N.* 52: 22), for it is the end and purpose of matter and form, whether they be considered from the static or from the dynamic point of view. Hence 'generacio simpliciter' is said to apply to the composite, 'generatio huius in hoc' to the form, and 'generatio huius sub hoc' to the matter—I *Phys.* p. 40: 5. From a casual remark (cf. p. 132) we know that the *esse* of the composite is related to its *essentia* as a 'propria passio', but apart from the implication here that the relation between *esse* and *essentia* is something midway between a logical and real distinction, no detailed theory of essence and existence is given by Bacon.

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[1] As summarized by Duhem, *op. cit.* t. V, p. 396.

Of the various accidents of the composite which have their remote principle in matter and form and reveal its substance (*Quaest. Met.* xi, p. 22: 27, 23: 22) I do not propose to treat. Concerning the operation of the composite it has been shown (p. 124) that the composite can truly be said to operate because its matter as well as its form produces species and because essence, substance, power, and virtue are really the same thing looked at from different points of view. The question of the various kinds of composites brings us to the consideration of the hierarchical grades in the universe.

COSMOLOGY

The lowest kind of composite in the metaphysical sense is the element, and under the forms of the four elements, earth, water, air, and fire, the *materia non celestis* or the *materia naturalis* of the terrestrial world was created. These elements were endowed with a strong power of activity (cf. p. 126) which, together with the common *materia naturalis* whose nature it is to be in potency to contrary elements and mixtures (*C.N.* 73: 27), is the cause of the diverse types of becoming in the inanimate world. Of these the two fundamental varieties are the conversion of one element into another and the combination of certain elements to produce mixtures. The first, exemplified by the transmutation of water into air during summer and of air into water during winter, involves, like all becoming, a power in the agent to destroy the specific nature of the recipient and to reproduce its own complete likeness of substance and accidents in the common *materia naturalis*

—*C.N.* 268: 12. The second follows the same fundamental procedure, and like the first applies only to parts of the elemental spheres and not to the whole which comes into being only through creation: were it otherwise, the safety of the universe would be endangered—*C.N.* 269: 30 f.

Discussing the production of mixtures, a subject important enough to constitute the special science of speculative alchemy,[1] Bacon asks what happens to the elements involved. He merely answers that in a true mixture [2] generated from the potency of *materia naturalis* by the activity of celestial bodies the contrary specific natures of the elements must be destroyed and removed if we are to have anything more than a compound such as might be produced from oil and water—*Op. Min.* p. 361 f. But if the natures of the elements are destroyed, we might ask Bacon how he supposes that an element can be regained from a mixture (*C.N.* 268: 14). To answer this he would probably appeal to his alternative view that the four elements, which enter into every mixture (*Op. Min.* p. 363), enter as two mediating natures. One of these being less active (i.e. the medium between dry and wet) serves as matter for the more active nature (i.e. the medium between hot and cold), and thereby preserves the unity of the mixture [3]—*Op. Min.* p. 363.

Surrounding the spheres of the four elements are those of the seven planets and that of the fixed stars. According to Duhem,[4] in the early second series of *Quaestiones* on the *Metaphysics* Bacon held that the sphere of the fixed stars imparts that diurnal movement from East to West which is common to the seven inner spheres, while in the later second series of *Quaestiones* on the *Physics* he supposes this movement to be imparted by a ninth celestial sphere, which is styled *immobile* or self-moving. In the still later introduction to the pseudo-Aristotelian *Secretum Secretorum* (p. 12) Bacon substitutes for this ninth sphere the *celum aqueum*,[5] and, like Hugh of St. Victor, adds a tenth sphere, the *celum empyreum*, remarking in a gloss on the same work (p. 128, n. 1) that the two last spheres are invisible to mortals. In the *C.N.* 388: 33 f. he retains the same number and there deduces from the *motus declivus et rectus* of the eighth sphere the necessary existence of a ninth and tenth sphere. Again he claims for the tenth a simple and unique movement approximating to the simplicity of the First Mover and contrasting with the more complicated movements of the orbs of the fixed stars and of the planets—*C.N.* 387: 32. This simple movement of the outer tenth sphere as transmitted to the inferior orbs is the common diurnal movement.

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[1] Practical alchemy is concerned with the production and purification of metals—cf. *Op. Tert.* p. 39 f.

[2] The Scholastics distinguished 'mixta proprie dicta', i.e. the modern compound, from 'mixta ad sensum'.

[3] Were the four elements equally balanced, we should have an incorruptible mixture—*Op. Min.* p. 363. If this elixir could be discovered, it would be the means of prolonging life by communicating to the recipient that element in which he was lacking.

[4] *Op. cit.* t. 3, p. 269.

[5] Cf. p. 384.

In addition to this common movement, which is more rapid in the outermost orb than in those which it encloses because that orb must cover a greater distance in the same time (*Quaest. Met.* xi, p. 76: 33), Bacon, like Grosseteste and Aristotle, holds that each of the inferior orbs has its proper movement due to the action of an intelligence [1]—*ibid.* p. 72: 31. This proper movement as far as the fixed stars are concerned is, as Ibn Thâbit [2] claimed, one of trepidation—*C.N.* 454: 21, *Op. Tert.* (Duhem) pp. 107–8, and *Op. Maj.* ii, p. 121; as far as the planets are concerned, it is, according to the second series of *Quaestiones* on the *Metaphysics* [3], a movement from West to East, but according to the *Op. Mai.* i, pp. 257, 378–88 it seems to be one of epicycles and eccentrics—a theory unknown to Bacon in the early *Quaestiones* on the *Metaphysics* and *Physics*.[4] It is better to say 'seems' because Bacon, like Grosseteste, hesitated between the homocentric system [5] of Alpetragius and the epicycles and eccentrics [6] postulated by Ptolemy—cf. *Op. Mai.* i, p. 306. Both men knew that the homocentric system had been discredited by the observations through which the varying distances of planets from the earth could be proved—cf. *C.N.* 441: 9, 443: 16; *Op. Tert.* (Duhem) pp. 134–7. Bacon also knew that the argument of Averroes against the Ptolemaic system was really invalid since Ptolemy had posited a combination of solid orbs (cf. *C.N.* 437: 36–440: 31 and *Op. Tert.* (Duhem) pp. 125–33), but because the Ptolemaic system seemed to contradict the principles of physics and to involve the existence of a vacuum, or a something between the orbs, or a condensation and dilatation of the orb (*C.N.* 445: 5, 429: 23–437: 34, *Op. Tert.* (Duhem) pp. 114–25) he does not definitely adopt the system. He therefore remained suspended between the two systems.

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[1] In the gloss on *Sec. Secr.* p. 127, n. 2 Bacon says that 'intelligence' is what the Christians mean by the term 'angel'.

[2] Bacon regards Ibn Thâbit as a Christian astronomer.

[3] As cited by Duhem, *op. cit.* t. III, p. 270.

[4] Contrasting Bacon's limited astronomical knowledge while a master at Paris with his more extensive knowledge shown in the *Opus Maius* and *Opus Tertium* of twenty years later, Duhem (*ibid.* p. 277) remarks, 'Mais alors, Bacon portera la bure de S. François; et aura vécu à Oxford et la, comme les frères mineurs d'Angleterre plus qu'aucun d'entre eux, il se sera pleinement instruit en lisant les écrits de Robert Grosseteste, évêque de Lincoln.

[5] Speaking of Bacon's exposition of this system in the *Opus Tertium* (ed. Duhem) pp. 108–13, Duhem in the introduction to his edition (p. 15) says that it is 'le plus complet et le plus exact que le Moyen-Âge occidental ait produit'.

[6] Bacon's best accounts of the system are in *Op. Tert.* (Duhem) pp. 99–107, and *C.N.* 418: 15–423: 34.

The foregoing movements represent the chief type of change in the celestial bodies, for generation and corruption do not apply to those things whose form satisfies their matter—*C.N.* 70: 6. In addition to this local movement of the parts of the heavens,[1] there is in some of the heavenly bodies a 'renovacio lucis et similitudinum rerum inferiorum'—*C.N.* 66: 10. The first, which means that celestial bodies act on one another, is exemplified by the sun's power of actualizing that kind of innate potential light possessed by the moon and stars[2]—*Op. Mai.* i, p. 129; *Op. Tert.* (ed. Brewer) pp. 115, 119. The second means that terrestrial bodies can act on the celestial, and of this Bacon briefly says that the action is possible 'propter maiorem conformitatem universi et salutem'—*D.M.S.* p. 448. Like the reverse process, already mentioned (p. 152), it occurs because celestial and terrestrial bodies communicate in a *materia corporalis* and a *materia prima*—*ibid.* 446. The remark that this reverse process is due rather to the stars than to their orbs (*C.N.* 23: 23) shows that Bacon, like Grosseteste, claims that there is a difference in nature between the stars and their orbs. Thus in *C.N.* 272: 21 he writes, 'stella differt a stella secundum speciem et ideo ab orbe qui minus convenit cum stella'[3]—cf.

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[1] There could be no local movement of the whole of the heavenly bodies, for outside the heavens, there is nothing, not even place or vacuum—*C.N.* 45: 6; *Quaest. Met.* xi, p. 35: 38.

[2] Bacon has nothing of Grosseteste's theory of *lux*. For him, *lux* is convertible with *lumen* and is not a body—*Op. Maj.* ii, p. 506 and i, p. 117; *D.M.S.* p. 409.

[3] In the second series of *Quaestiones* on the *Metaphysics* Bacon had held

397: 281, 401: 21; and in *Op. Tert.* p. 118, 'Atque cum idem vulgus philosophantium et theologorum[1] dicat quod stella non differt ab orbe, nisi per maiorem aggregationem et minorem lucis, falsum est, quia sola stella lucet.' Again, even the orbs differ among themselves—'orbes coelestes licet sint diversi in natura et specie, tamen conveniunt in diaphaneitate'—*D.M.S.* 461, cf. *C.N.* 393: 18.

Above the inanimate celestial bodies Bacon ranks the plant and animal kingdoms, but since he regards these, like all *naturalia* and all *artificialia*, as existing only for the use and the delight of man (II *Phys.* p. 64: 21), he gives them a very inadequate treatment. Hence his chief remarks have been introduced under the section on animate generation. The rest will be treated under Psychology.

PSYCHOLOGY

Bacon accepts the scholastic proposition that man is a compound of body and soul. The body, constituted from elements and mixtures, develops out of the embryo, acquiring its members from the female parent and its spirits from the male. From the potency of embryonic matter the vegetative and sensitive souls are also developed. That such must be the origin of these souls, rather than creation—a theory publicly advocated by many moderns who derive their view from the *De Spiritu et Anima* and the *De Ecclesiasticis Dogmatibus*, works erroneously ascribed to Augustine[2]—may be deduced from the facts that these types of soul are found in plants and in animals, and that before the late infusion of the rational soul the embryo is nourished, grows, and feels.[3] Besides, in denying the creation hypothesis English theologians and philosophers[4] agree with both the article of faith that man alone is created in the image of God and with Aristotle, Avicenna, and Averroes who claim

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that the stars are of the same nature as their orbs. Cf. Duhem, *op. cit.* t. 3, p. 270.

[1] Among these would be Albert the Great. Cf. his *De Caelo*, ii, tr. 3, c. 1 and 4.

[2] The first belongs to Alcher of Clairvaux and the second to Gennadius.

[3] The first two activities together with reproduction are the functions of the vegetative soul. The latter together with local movement is the peculiar activity of the sensitive soul.

[4] Cf. *supra*, p. 37, n. 2.

that the intellect alone is created.[1] Were the vegetative and sensitive souls created, at death they would be separated with the intellect. Now these lower souls cannot operate without their organs; hence if they were thus separated, they would lack their specific operations; but—'nulla res dum est, potest privari sua operatione specifica'. Therefore, their separation at death being impossible,[2] the vegetative and sensitive souls cannot be created—*C.N.* 281: 34 f. When educed, these souls are not definitely human, as a certain famous man [3] has been asserting for the last ten years, but are essentially of the same nature as the like souls in plants and in animals. If this be denied, Aristotle's theory of the intellect as the specific differentia of man falls—*C.N.* 284: 32 f.

From the foregoing it is clear that the body has its corporeity and its vegetative and sensitive powers independently of the intellective soul, and consequently, in addition to his *forma intellectiva* man will have a *forma corporeitatis*, a *forma vegetativa,* and a *forma sensitiva,* all actuated and moved by the *forma intellectiva.* Because this latter form completes the lower ones, Bacon can write, 'Nulla forma potest suam materiam cuius est actus transmutare nisi anima' (*C.N.* 83: 20): on the other hand, because it is not the only form in body, he can also say, 'Anima est hoc aliquid preter hoc quod est actus materie, et ideo potest suam materiam movere' (*C.N.* 83: 29); or again, 'Alia est multiplicacio equivoca . . . quod multos effectus facit ⟨agens⟩ preter speciem suam et virtutem sibi univocam. Et sic . . . angeli movent celos et stellas, anima corpus suum' (*C.N.* 45: 21); or lastly, in a more extreme manner, 'Movens spirituale ⟨est⟩ duplex; quoddam creatum, et hoc est duplex; unum quod coniungitur mobili tanquam actus, ut anima corpori, et tale movetur ad motum mobilis, set per accidens, ut nauta in navi; aliud est movens spirituale creatum quod utitur mobili sicut motor tantum, non sicut actus, ut intelligentia orbi quem movet, et tale non dependet a mobili secundum substantiam, dependet tamen quantum ad operationem, et tale a mobili non movetur alico modo, set ab alio moveri potest, ut a prima'—*Quaest. Met.* xi, p. 34: 10.

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[1] In *Quaest. Met.* xi, p. 19: 22 Bacon says that when Averroes holds that intellect comes 'ab extrinseco', he means 'a summo bono per creationem.' Presumably he interprets Aristotle in the same way.

[2] St. Thomas holds that they remain 'in virtute . . . sicut in principio vel radice'—*S. Theol.* i, q. 77, a 8.

[3] Hover in 'Roger Bacons Hylomorphismus &c.' in *Jahrbuch f. Phil. u. Spek. Theol.*, 1911, p. 370 takes this famous man to be Albert the Great, and refers us to the *De An.* lib. 1, tract. 2, c. 15.

The soul's power of moving its body suggests the question of its presence in body—a question that Bacon, like Grosseteste, regards as one of the most difficult of philosophical problems. His long discussion of the problem in *C.N.* p. 224 f., which seems to add nothing to the position of Grosseteste, may be summed up in the following conclusions. If certain corporeal things, such as unity and number, have no relation to 'here' and 'there', because they have neither '*situs*' nor '*posicio*', spiritual substances with their indivisible nature need not be related to space—*C.N.* 229: 12. Such substances are said to be in place only when they operate there, though they may be regarded as being in that place even *secundum substantiam* because their power does not exceed their essence—*ibid.* 232: 23 f. Clearly, then, no finite spiritual substance can be in different places at the same time. This truth, which also implies the admission that transit through space requires time, is confirmed by Aristotle's theory that no finite power acts in an instant—*ibid.* p. 224 f.; *Op. Tert.* p. 168 f. In the early IV *Phys. Quaest.* p. 172: 12 also Bacon follows Grosseteste, saying that strictly 'place' does not apply to the soul, 'anima per accidens est in loco corporali, scilicet in corpore cuius est perfectio et actus, quia corpus in loco est per se, et anima in loco per corpus.' And later (in *ibid.*) he writes, 'Communiter esse in loco est esse in loco per presentiam et ubi est operans, et sic substantia natura⟨e⟩ prima⟨e⟩ dicitur ⟨esse⟩ in loco, quia ubique est essentialiter et ubique potest operari; proprie esse in loco est ⟨esse⟩ per diffinitionem et determinationem sicut ubi, et sic intelligentia dicitur esse in loco; magis proprie esse in loco est ⟨esse⟩ per circumscriptionem et ambitum dimensionum, et sic omne corpus naturale est in loco. (Cf. *Op. Tert.* pp. 172, 187.)

From these secondary aspects of the soul we turn to consider it in its essence, and we have first to ask what kind of an entity soul has. Universally it is agreed that the soul is not an accident, but since all beings other than God must come under the ten categories, it is obvious that the soul must be a substance. Moreover, souls, like angels, have accidents, e.g., knowledge, virtue, and grace. Therefore, they must be substances. Now Aristotle says that composition of substance and accidents follows that of matter and form. Consequently, the soul must also have matter and form. Again, the rational soul is the last complement of the human embryo which, being the subject of generation, is a composite. Therefore, the rational soul, too, must be a composite having a form to perfect the form of the embryo and a matter to complete the matter of the embryo. Further, every form has its corresponding matter and neither of these exists alone. No created substance is, then, a pure form or pure matter—*Comp. Stud. Theol.* p. 66. Lastly, composition of actuality and potency is the mark of limitation found in every created being, and composition of actuality and potency is only another way of saying composition of form and matter—*C.N.* 293 f. To the opponents of hylomorphic composition Bacon, like Thomas of York,[1] retorts that only a confusion of *materia prima* with *materia naturalis* could have led them to suppose that such a composition destroys the dignity and the simplicity of the soul[2]—*C.N.* 294: 18; *Sec. Secr.* p. 127, n. 1.

As a substance, the soul is essentially activity, and this activity is exercised through the vegetative, the sensitive, and the rational faculties. What now is the relation between these faculties and the essence of the soul? Bacon adopts the view of Boethius that the faculties are virtual parts of the soul, explaining that 'virtual' is in the spiritual world what 'quantitative' is in the corporeal. If they are not virtual parts, the faculties must be accidents, or something midway between substance and accidents.[3] They cannot be the latter because that is metaphysically impossible; they cannot be the former because the vegetative soul in plants and the sensitive soul in animals are not accidents but substantial forms, and what is true for plants and animals must be true for man—*C.N.* 295: 9 f. On the other hand, they cannot be absolutely identical with the essence of the soul, for in creatures 'operatio est a potentia et non a substantia'. Therefore, 'substantia, virtus, and operatio' are related 'per differentiam'—*Quaest. Met.* xi, p. 82: 26, and the operating faculties are said to be virtual parts. Such parts, as well as the receptive potency in the lower faculties for the intellective faculty, preserve the simplicity of the soul—*C.N.* 296: 2.

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[1] It will be remembered that Thomas drew his theory of matter in spiritual beings from Augustine. Bacon borrowed from Avicebron (cf. p. 142).

[2] Although Bacon regards the soul as composite, he does not raise the question of its individuation. The only remark that bears remotely on the question is that in *C.N.* 244: 9 which allows grades of nobility in the animal species but regards such a possibility in the human species as doubtful.

[3] The former was probably the view of Richard of Cornwall, Bacon's *bête noire*; it is referred to as 'opinio dampnabilis vulgata Parisius' (*C.N.* p. 297: 13) and elsewhere Bacon uses similar epithets for Richard. The second view is the logical conclusion of St. Thomas's theory (cf. *Summa Theol.* i, q. 77, a 1 and 5.

Stated in this way, the theory is fairly intelligible, especially if we understand these virtual parts to be the terms corresponding to the piecemeal apprehension by which mind must estimate the rich complexity of beings; but Bacon spoils his interpretation and approaches too closely to a real distinction, when, in defending the simplicity of the soul, he writes, '⟨Anima⟩ est una substancia composita ex pluribus partibus, sicut corpus, que partes sunt diverse per essenciam sicut partes corporis, tamen sit unum per essenciam ex eis, et hoc est vere unum, quia sicut in corpore resultat una forma tocius, copulans omnes partes in unitate essenciali, sic est a parte anime quod una natura substancialis resultat ex partibus pluribus in qua habent unitatem essencialem'—*C.N.* p. 297: 5. A further difficulty arises when we remember that Bacon has said that the two inferior faculties are educed from the potency of matter, for now, instead of standing in a definite relation to the intellective soul, they have become like it virtual parts of the substance of the whole soul. The difficulty is brought out more clearly in his assertion in the earlier *Quaest. Met.* xi (p. 17: 5) that the vegetative and sensitive souls in respect of the subject in which they are rooted are not corrupted at death, though when compared to the body from which they are educed, they are corrupted; and while in the *Communia Naturalium*, as we have seen, he renounces this view and refuses to regard the inferior souls as separable, the difficulty still remains, for how can that which is distinguishable from the essence of the soul only 'per differentiam' be actually separated from it?

In turning to intellect as the proper faculty of the rational soul, it is clear that cognition is its primary activity, and in this activity the co-ordination between the sensitive and the rational soul is manifested. The materials of sense are the species radiated from every natural agent. These species, which are really the transformed medium, may be imperceptible, but they are not spiritual in the strict sense, and therefore when Aristotle says that sense receives form without matter, he simply refers to corporeal matter—*D.M.S.* p. 510. As received into the sensitive and the intellective soul, species have a purely perfecting influence in contrast to their destructive influence on the nature of a corporeal being—*D.M.S.* p. 417. This perfecting process begins with the response of the soul to external stimuli[1]—a response that arises when the *sensus communis* correlates the reports of the five senses and enables these senses to know that they are perceiving. The species thus assimilated are retained in the imagination, but before they can become the material for more developed knowledge the *virtus aestimativa*[2] must judge of them. Its results are stored in the memory[3] and provide the dream-images of man as well as that type of cogitation which is common to man and to animals[4]—*Op. Mai.* ii, p. 7. In addition to this conscious sense knowledge we have also an instinctive kind of reasoning ⟨arguendi⟩ that we share with animals, and this is the unconscious reasoning on perceived things such as appears when we choose the more beautiful of two apples—*ibid.* p. 81.

It is from conscious sense-knowledge that man develops his higher knowledge through universals, and this is achieved ultimately by a comparison of remembered species with present ones, though primarily through that power by which we are able to abstract the universal from its material conditions and to assimilate it. Hence Bacon claims, '⟨Anima⟩ non intelligit per administrationem fantasmatum set per completam reductionem ad essentiam suam et exemplaria'—*Quaest. Met.* xi, p. 16: 2. His theory of the process involved is like that of Grosseteste,[1] being summed up thus—'Sensus particularis primo apprehendit res materiales per suas species, et ulterius depurando ad fantasiam deferuntur et tunc intellectus agens, cuius creata sunt exemplaria, irradiat super fantasmata, ipsa a conditionibus materialibus abstrahens in intellectu possibili reponendo'—I *Phys.* p. 31: 19.

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[1] In *D.M.S.* p. 463 Bacon speaks of the species coming to the soul along tortuous nerves, and in a note on this passage Dr. Bridges observes that Bacon here forsakes his earlier view of the brain as the *sensorium commune* (cf. *Op. Mai.* ii, pp. 4–9) for the Aristotelian view that the heart is the centre. I have noticed that in the same work (p. 12) Bacon reconciles this contradiction by declaring that though the brain is the more obvious instrument of the sensitive soul, because in it sense-operations are more distinguished, the heart is the more radical because it is the seat of life.

[2] Even though this is a part of the sensitive soul, Bacon thinks it better not to call it 'sensus' because it apprehends 'formas insensatas'—*Op. Mai.* ii, p. 7.

[3] In *C.N.* p. 300: 34 he holds that *memoria* and *aestimatio* are one power *secundum substantiam* but that they exercise different operations and require diverse subjects and instruments.

[4] Bacon thinks that animals store sense impressions in their memory, know one universal from another, e.g. man from dog, and distinguish individuals of the same species; and since this type of knowledge is common to man and animals, he concludes that it must be derived by the power of the sensitive soul. Though animals cannot reflect like man, they have a certain reasoning power, e.g. they know when a movement of a stick is likely to be harmful, and too, malicious apes appear to reason when they prepare plots against men—*Op. Mai.* ii, pp. 127–9.

We have here the Augustinian illumination theory and in the *Op. Tert.* p. 73 Bacon makes it clear that he follows the teaching of Grosseteste, Adam Marsh, and William of Auvergne whose two disputations on the *Intellectus Agens* he says he attended. Consequently he takes the *intellectus agens* lighting up the phantasm to be the Divine co-operation in human knowledge. 'Intellectus agens est Deus principaliter, et secundario Angeli, qui illuminant nos. Nam Deus respectu animae est sicut sol respectu oculi corporalis, et Angeli sicut stellae'—*ibid.* p. 14. Again, 'Augustinus dicit in *Soliloquiis* et alibi, quod soli Deo est anima rationalis subiecta in illuminationibus et influentiis omnibus principalibus. Et quamvis angeli purgent mentes nostras et illuminent et excitent multis modis, et sint ad animas nostras sicut stellae respectu oculi corporalis, tamen Augustinus ascribit Deo influentiam principalem sicut soli influentia luminis cadentis per fenestram ascribitur, et angelus aperienti fenestram comparatur, secundum Augustinum in glossa super illud Psalmi, "Da mihi intellectum"'—*Op. Mai.* iii, p. 48.

The erroneous belief of theologians and philosophers that the active intellect is a part of the soul arises from faulty translations of Aristotle, and chiefly from the passage which runs, 'Quoniam autem in omni natura est aliquid quod agat, et aliquid quod patiatur, ita erit in anima.'[2] Most people explain 'in omni natura' as meaning that in each natural being there is an active and passive principle, but Aristotle really means that in every operation of nature, including that of the soul, there are two principles which are not parts of the same thing, 'sed unum extra aliud secundum essentiam, ut artifex et materia'. That this passage in Aristotle refers to the operations and not to the nature of the soul is also supported by his statement in II *Phys.*[1] that the agent and the matter of a being cannot coincide as its parts. Again, Aristotle makes clear his view of the active intellect as separate when he compares the active and passive intellects to an artist and his materials or to light and colour.[2] Further, Aristotle's explanation in IV *Phys.*[3] of how one thing can be in another 'sicut movens in moto et efficiens in materia' applies to the relation between the active intellect and soul as a union 'secundum influentiam', rather than 'secundum substantiam'. Lastly, Aristotle's statement that the active intellect is separable, unmixed, and incorruptible can only mean that it is not a part of the soul, just as the statement that it knows all and is always in act must mean that it is God—*Op. Tert.* c. 23; *Op. Mai.* iii, p. 44 f.

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[1] Bacon seems to give the species a more definite role in bringing the intellect into contact with the external world. Grosseteste reduced the species to an occasion for evoking universals.

[2] Cf. *De Anima*, iii, S. 1, c. 3, f. 169^{v}a.

This separate active intellect must be God, for the Averroistic doctrine of one intellect for all men is quite untenable. Such a doctrine undermines all laws of moral philosophy, making virtue and vice the same, and means that the same soul would be both glorified and damned at the same time in the future life. Moreover, it destroys all laws of nature, for Aristotle has shown that a definite matter has its particular form, and conversely. Therefore, the rational soul in Socrates is his peculiar form and perfection and cannot be in any matter other than the body of Socrates. Consequently, one soul cannot be in different bodies at the same time, or, as Aristotle in III *De Anima*[4] argues against the transmigration theory of Pythagoras, in different bodies at different times. Further, Aristotle in IV *Phys.*[5] holds that if that which is one in number is able to be in two places, it is able to be in three, or four, or in an infinite number of places. But if this be true, its potency is infinite and it is God. Again, were the same soul in all men, it would be at the same time both ignorant and cognisant of the same things. Lastly, it has been maintained by Averroists that he who knows grammar or logic knows the one science of grammar or of logic, and accordingly, since all have the same science in their souls and the same thing is not able to be in different subjects, there must be one soul in all, as there is one science. Bacon replies that such a science is an accident of the soul, a *habitus cognitivus*, and therefore can be numbered according to souls: it is one in species, but not one in number—*C.N.* p. 286 f.

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[1] Cf. ii, S. 3, c. 1, f. 28^{v}b.

[2] This passage of the *Op. Mai.*, as Keicher in his article *Der Intellectus agens bei Roger Baco* (*Beiträge* series, Suppbd. i, 1913, p. 297) observes, is almost a paraphrase of Roger Marston's *Quaestio Disputata* edited in *De humanae cognitionis ratione*, Quaracchi 1883, p. 197 f.

[3] Cf. iv, S. 1, c. 3, f. 60^{v}b and the comments of Averroes on the passage.

[4] i, S. 3, c. 1, f. 119^{r}a.

[5] iv, S. 2, c. 1, f. 69^{r}b.

Aristotle's separate intellect, then, cannot be other than God. In its co-operation with the virtuous soul this *intellectus agens*, according to the passage from I *Phys.* p. 31: 19 (cf. p. 161 *supra*), seems to illuminate the phantasm, but in the later *Op. Tert.* p. 74 the illumination seems to apply only to the *intellectus possibilis* which in that way becomes active—'Intellectus possibilis vocatur qui est in potentia ad scientiam, et non habet eam de se; sed quando recipit species rerum, et agens influit et illuminat ipsum, tunc nascitur scientia in eo.' This latter appears to represent Bacon's real opinion, for the *intellectus possibilis*, which alone is found in the soul (cf. *C.N.* 298: 30), is never regarded by him as a merely passive instrument of Divine illumination. In fact, Bacon sometimes falls into the misleading way of using 'intellectus agens' for the activity of the *intellectus possibilis*; thus he says, '⟨In discipulo⟩ sufficit intellectus agens pro causa interiori et magister exterius'—*C.N.* p. 289: 25. This is elucidated by his remark in *Op. Mai.* iii, p. 45, 'licet intellectus possibilis possit dici agens ab actu intelligendi, tamen sumendo intellectum agentem, ut ipsi sumunt, vocatur influens et illuminans possibilem ad cognitionem veritatis'.

In spite of all these abstracted mediating stages in our production of the universal, Bacon holds that the intellect is in immediate contact with the external object,[1] and speaking of this, he says, 'Intellectus, quantum ad hanc operationem que est simplex apprehensio, semper est verorum et rectus; sed quantum ad istam, que est apprehensa componere et dividere, potest esse rectus et non rectus'—I *Phys*. p. 31: 33. With regard to simple apprehension, we may ask whether the sensible particular that provides the *species sensibilis* from which the universal is developed is known otherwise than as an object of sense. Bacon, advancing beyond Thomas of York, thinks it is, and says that the intellect knows the singular inasmuch as the singular is a substance (I *Phys*. p. 31: 1), for substance as well as accidents,[1] and singulars, as well as universals, generate species. Therefore, we read in the same passage: '⟨Cum⟩ universale sit communis intentio opere rationis abstracta a pluribus et singularibus, et ita a materia denudatum, primo et per se intelligitur, singulare autem ex consequenti et per accidens'. From this follows Bacon's opinion that though the universal in its strict sense is better known than the singular (cf. I *Phys*. p. 4: 1 f.), the intellect can be said to have 'cognitio ⟨alicuius⟩ rei particularis illac particularis'—*Quaest. Met*. xi, p. 81: 11.

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[1] In *Comp. Stud. Theol.* pp. 44, 45 he declares that when we talk about a house we mean the real house outside the mind and not the species of the house in the mind. It was left for Pecham to bring out that species is only that *by* which we understand and not what we understand.

Returning to the faculty of judgment in which the possibility of error lies, we find that it is the *sine qua non* for all knowledge other than sense-knowledge; this includes knowledge through privation, e.g. shade through privation of light; through analogy or proportion, e.g. matter through form; through resolution and reduction, e.g. the primary member of every genus, and through operation and effect, e.g. the First Cause—*Quaest. Met*. xi, p. 1: 30 f. These last two types of knowledge, which come under knowledge *per argumentum*, can never be complete unless they are confirmed by experiment; and none of the types, whether they concern spiritual or corporeal things, can approach perfection apart from the gift of faith[2]—*Op. Mai*. ii, pp. 167–70.

In addition to a knowledge of the corporeal world the soul has a knowledge of spiritual beings. This knowledge is derived not through phantasms but through innate exemplars. 'Intellectus creatus materie transmutabili coniunctus, scilicet corpori, . . . est duplex; quidam est agens, scilicet una pars intellectus elevata ad superiora contemplandum, et hec vocatur intellectus agens, et hec non intelligit per administrationem sensuum, set per exempla sibi innata, confusa tamen; et quantum ad hanc partem non suscipit intellectus lassitudinem et languorem[1] in intelligendo, et hic est intellectus agens ⟨qui⟩ remanet in anima quando a corpore separata est. Alter ut intellectus possibilis, scilicet altera pars intellectus vel rationis quando ratio se inclinat ad inferiora, et hic intelligit per administrationem sensuum'—*Quaest. Met.* xi, p. 110: 1.

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[1] It seems difficult to give a content to the species of substance. It would have been better to say that substance, like matter, generates its species through the action of the composite.

[2] Divine illumination has also functioned in primitive society and has providentially developed and directed that historical and revealed tradition in which philosophy was contained—cf. *Op. Mai*. iii, p. 49 f. and R. Carton, *L'expérience mystique de l'illumination intérieure chez Roger Bacon*, Paris 1924, pp. 31 f., 323 f.

This knowledge of spiritual beings applies primarily to the soul's knowledge of itself, and this comes 'per presentiam, ut ⟨similiter⟩ intelligentia cognoscit se cum sibi ipsi presens'—*ibid.* 2: 4. The power of reflecting on the contents of consciousness is more fully described in another passage: 'In anima . . . reflexio potest fieri vel conversio intellectus supra speciem absolute, non considerando cuius rei sit illa species vel ymago, et sic fit pura apprehensio speciei et non memoria,[2] vel potest fieri reflexio supra illam considerando cuius rei sit, et conferendo ad rem cuius est, et sic fit cum apprehensione memoria'—*ibid.* 88: 25.

The innate exemplars also apply to the angels and to God, but those for God are feeble, applying only to His existence and not to His unity or to His attributes, and requiring to be developed by faith and by such arguments as those from the consent of the majority of mankind and from the impossibility of an infinite regress of causes—*Op. Mai.* ii, p. 375.[3]

So much for the intellect of men. In turning to the will we shall not be considering a separate faculty, for clearly, if the vegetative, sensitive, and intellective souls are not diverse according to essence, the potencies of the intellective soul will hardly be thus diversified—*C.N.* p. 300: 3. The soul is called reason in so far as it speculates and will in so far as it desires.[4] ' . . . sicut

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[1] Steele reads 'lassitudinem, langorem'.

[2] I have substituted this alternative given by Steele for the 'memorare' in his edition.

[3] The knowledge of the separated soul is omitted in this section, for Bacon regards it as resembling that of the angels (cf. p. 168).

[4] This was also the doctrine of Alcher of Clairvaux (cf. *De Spiritu et Anima* in Migne, *P.L.* 40: 788).

Aristoteles vult in hoc verbo: "intellectus speculativus per extensionem fit practicus", quia quod theologi vocant racionem et voluntatem vel intellectum et[1] affectum philosophus vocat intellectum speculativum et practicum. Cum ergo dicit in tercio *De Anima* quod intellectus speculativus veritatis fit practicus per extensionem eius ad amorem veritatis cognite, ut eam velit opere complere, patet per ipsum quod eadem res est que primo speculatur, et que secundario eciam vult quod speculatum est'—*ibid.* 299: 6. Were will and intellect different *per essenciam*, they would never excite each other to operation, and thus the soul might vainly know the truth without loving it —*C.N.* 299:19. Their identity is further brought out by Augustine's remark that 'liberum arbitrium est facultas racionis et voluntatis'—*C.N.* 301: 36. If it be objected that because understanding and willing as operations of the intellective soul are diverse *per essenciam* their faculties must also be thus diversified, Bacon replies that this argument holds only when the operations do not stand in a definite relation to each other[2]—*ibid.* 300: 10. Since, then, will and intellect are not even virtually distinct like the vegetative, sensitive, and intellective souls, Bacon does not need to raise the question of their primacy. Will, as the desiring speculative soul, is the distinguishing property of man when he is compared to the lower animals; for though he may often act apart from apprehension and willing, e.g. in his vital operations and instincts, and though many of his deliberative actions may be brought to the level of natural actions, e.g. smiling and sighing in his sleep, to deliberate and choose is the prerogative[3] of man—*C.N.* 108:10 and 109:11.

Deliberation and choice afford the conditions for the moral life. On this moral life Bacon, like Grosseteste, denies that the celestial bodies have any influence—cf. *Op. Tert.* (Little) p. 4 and *Met.* (Steele's *Fasc.* 1) p. 52; and, therefore, in his introduction to the *Sec. Secr.* p. 3 f. he holds that skill in astronomy can help man only in so far as it enables him to know his undesirable physical inclinations. Moral science, concerning which in *Op.*

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[1] Steele's edition reads 'vel'.

[2] This, of course, contradicts the theory outlined on p. 158.

[3] These powers sometimes are said to be natural in the sense that they come from the essence of the soul because essence and nature are identifiable according to Boethius. Thus, too, the generation of God the Son might be termed natural—*C.N.* p. 117 f.

Mai. iii. p. 77 he says, 'propria et perfecta est theologia,' is important because all other sciences derive their value in so far as they minister to it—*Op. Tert.* (Little) p. 55; *Op. Mai.* ii, p. 224. Because it is so important, the speculative contributions of ancient philosophers, which Bacon regards as often more praiseworthy than the practices of Christians, are set forth at length in the interesting third section of Pt. VII of the *Op. Mai.*[1] There, however, Bacon expresses the view that while ancient ethics may remove three of the impediments to our knowledge of the Divine will and of eternal life, namely, sin, concern for the body, and worldly preoccupation, Christianity alone can remove the fourth, namely defective revelation, revelation being necessary because of contradictions in the different sects and the natural limitations in human knowledge—cf. *Op. Mai.* ii, pp. 241, 383; *Met.* (Steele's *Fasc.* 1) p. 38 f.

Like intellect and will, intellect and memory, man's third rational faculty, are scarcely distinguishable, because they do not require diverse subjects or instruments. Hence Bacon writes, 'Si vero dicatur quod Augustinus et theologi ponunt partes ymaginacionis memoriam, intelligenciam et voluntatem, dicendum est quod hec particio non est nisi secundum actus et habitus non secundum virtutes. Et in hoc concordat quod dicit intelligenciam formari a memoria, quod non contingeret si essent diverse virtutes, quia hec diversitas virtutis esset secundum naturam et essenciam et speciem, sicut est de visu et auditu. Unde quod acies intelligencie formetur a memoria hoc non est aliud nisi quia eadem virtus anime, scilicet, intellectus ipse sive anima intellectiva post primam apprehensionem, interveniente quiete vel oblivione, recuperat intelligenciam per species quas ipsa anima habet'—*C.N.* 301: 13.

ANGELOLOGY

The angels, the most exalted of creatures, came into existence with *aevum*, a kind of created eternity of indivisible duration presupposing an uncreated eternity and preceding time, which begins with the production of generable beings—cf. *Quaest. Met.* xi, p. 32: 1; *C.N.* 173: 22. Having received existence, the angels must possess a composition of essence and existence—*C.N.* 152: 1;

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[1] Cf. also *Met.* (Steele's *Fasc.* 1) p. 19 f.

Op. Mai. ii, p. 379. In addition to this they have a composition of spiritual matter and form (cf. p. 142), of act and potency (*C.N.* 152: 1), and of genus and species [1] (*Op. Mai.* ii, p. 236 and *Met.* (Steele's *Fasc.* 1) p. 12); but of none of these types does Bacon speak in detail. In fact, both his angelology and his natural theology have to be gathered from incidental remarks bearing on other problems.

The angelic knowledge is regarded by Bacon as being of the same nature as that of the separated soul; thus both are said to understand themselves, that which resembles themselves, that which is inferior and that which is superior to themselves—*Quaest. Met.* xi, p. 109: 30. The way in which they understand themselves has been described on p. 165. Of the way in which they understand beings like and inferior to themselves we are only told that it must involve a universal as well as a singular species, because the universal alone does not express the nature of the singular (*C.N.* 104: 29), and that these species or 'forme rerum omnium, scilicet, creaturarum' (*Gloss on Sec. Secr.* p. 127, n. 2) are innate in the angel—*Quaest. Met.* xi, p. 94: 13. Their manner of knowing God may be by innate species, or by six other means common to them and to the separated soul; these are: (1) per quandam collationem et deliberationem sui ipsius ad suam causam . . .; (2) quantum ad conservationem; ipsa enim intelligentia intelligens suam conservationem, intelligit illam non esse a se set a suo creatore; (3) quantum ad sue cognitionis illuminationem a sua causa . . .; (4) quantum ad virtutes gratuitas quibus ipsa intelligentia perficitur in affectu; (5) per presentiam; quia ipsum primum semper est et ubique, et ita presens cuilibet; (6) quantum ad hoc quod ipsum primum, quod est speculum eternitatis, per gratiam creatis intelligentibus se detegit—*Quaest. Met.* xi, p. 119: 1. That which separated souls and angels apprehend when they are said to know God is not His whole reality but some property—*ibid.* 119: 34.

As regards the willing power of the angel, Bacon only says that it imparts the proper movement to each celestial sphere [2] (cf. p. 153), that it produces indirectly those inferior bodies which are generated by putrefaction (cf. p. 129), and that it functions as an intermediary between God and man—*Op. Mai* ii, p. 236; *Met.* (Steele's *Fasc.* 1) p. 12.

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[1] In the early second series of *Quaestiones* on the *Metaphysics* Bacon seems to have held that angels differed in species (cf. p. 116, n. 1).

[2] Bacon's views on the relation of the intelligences to space have been summarized on p. 157.

NATURAL THEOLOGY

God is that uncreated *esse* in Whom no diversity of composition is found. 'Sua accio et suum *esse*, et sua duracio, et sue duracionis mensura, et sua essencia, sunt penitus idem'—*C.N.* 151: 31. This pure actuality, found only in that plenitude of being implied by eternal existence (*Op. Mai.* ii, p. 378), may be regarded as functioning in two ways— 'Una est prima et essentialis, que est sui ipsius et ad seipsum, et hec nobilissima, . . . et hec omnino eadem est cum ipsa et cum sua voluntate; alia est cujus actio connotat in creatis, et hec est illa que est sui ipsius set ad aliud reffertur, scilicet ad creaturas ut creare, causare, influere, movere'—*Quaest. Met.* xi, p. 50: 19. That which God understands, then, is always His own essence either inasmuch as it is an absolute essence, in which case He knows Himself and not others, or inasmuch as it is an exemplar of all things, in which case by understanding Himself He knows all—even the impossible, if the impossibility arises from inferior causes, and also the bad, if the bad signifies a defect in creatures—*ibid.* p. 88: 19; 99: 13; 102: 1.

Both universals and singulars are known by God. Of the former Bacon says, 'Dicendum quod scientia in universali vel universalis duplex; quedam est in universali predicamentali continente plura, ut apprehendere rem a longe, et hec est quedam precognitio; prius enim apprehenditur a longe substantia quam animal, et animal quam homo, et homo quam Sor, et talis non est scientia primi; alia est scientia in universali quod universale est per causalitatem. Set hec est duplex; quia quedam est causa universalis que est coartata vel coartabilis, ut cause causate, et sic non cognoscit primum in universali; alia est causa universalis que nullo modo coartabilis vel coartata, sicut primum, et hoc modo scientia primi est universalis vel in universali, quia est per solam et simplicem inspectionem in seipso sciente causa universali existente'—*Quaest. Met.* xi, p. 79: 36.

Of God's knowledge of singulars Bacon writes, 'Notandum quod differt scientia rei particularis et scientia in particulari et particularis, et similiter de universali est intelligendum. Dico igitur quod scientia rei particularis est quando scitur aliquod particulare non in quantum huiusmodi nec per coartationem; et hec scientia potest esse universalis, quia cognoscendo hominem cognoscetur quodam modo particularia. Scientia autem in particulari est scientia de re in suo esse proprio, et hec item potest esse universalis quia sicut particulare cognoscitur in suo esse proprio, sic et universale. Scientia autem particularis est cognitio ⟨alicuius⟩ rei particularis illac particularis, et hec non potest esse universalis et hec est scientia coartata, et hoc modo non est scientia primi particularis, set primis modis'—*ibid.* p. 81: 1. It is clear, then, that knowledge by universals and by singulars strictly applies only to such knowledge as is derived from various caused beings—cf. *ibid.* 80: 34; 116: 3. Hence the above view of God's knowledge of things other than Himself, Bacon thinks, does not conflict with Aristotle's theory that the First Being knows nothing outside Himself, for, like Thomas of York, he believes that Aristotle denies only that type of knowledge of externals which is acquired by a potency different from essence and which perfects the knower—*Quaest. Met.* xi, p. 88: 36 f.

Some of the things known by God 'per exemplar penitus idem cum ipso' (*ibid.* p. 94: 14) are involved in an act of His will either as willing their creation or as conserving and directing them. Because they are thus involved, many famous men[1] have regarded God as the 'forma prima naturalis', but strictly this is incorrect, for form is relative to matter and privation—*C.N.* p. 74: 26. As regards creation, Bacon holds that an eternal creation is a contradiction in terms because *esse post non esse* is the very essence of creation—*Op. Mai.* ii, p. 380. And relying on the pseudo-Aristotelian treatise, *De Regimine Regnorum*, and ignoring Grosseteste's exposition of Aristotle, he asserts that even Aristotle believed in a temporal beginning of the universe—*Op. Mai., loc. cit.*; *Met.* (Steele's *Fasc.* 1) p. 10.

As to the other important question involved in creation, namely, that which asks whether creation means a change in God, Bacon tries to get over the difficulty by declaring 'In ipsa substantia eterna nulla est facta diversitas dispositionum,

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[1] Cf. pp. 41, 106 *supra.*

quoniam ipsum mobile primum incepit esse et movere, quia sua voluntas ad hoc a sua sapientia ordinata fuit ab eterno, que totaliter eadem sunt et omnia, ut produceret ad primum mobile in illo instanti in quo produceret et etiam moveret. Et est simile quod si aliquis existens iuxta me sit a dextris et postea si fiat a sinistris, nulla in me facta est mutatio vel innovatio statui illo, unde si ab eterno fuisset mobile, ab eterno movisset. Et ita nec in voluntatem nec in operationem facta est inperitia in ipsa substantia eterna, unde non habuit voluntatem faciendi mundum ab eterno, set ab eterno habuit voluntatem ut faceret mundum in illo instanti in quo fecit, ut si aliquis habeat voluntatem legendi in nonis et legat, non movetur sua volumptas' —*Quaest. Met.* xi, p. 29: 3; cf. I *Phys.* p. 79. There can be, then, no actualizing of potency in God, because His power is not other than His essence and His actuality; therefore, Bacon adds, 'Hec actio quod est "creare" quantum ad primum quod ibi tangitur, scilicet quantum ad velle, idem est cum ipso primo, et etiam est ipsum et etiam sua voluntas est; set secundum quod ibi tangitur vel intelligitur, scilicet exitus creature vel volitorum,[1] non est idem cum ipso vel cum sua voluntate, set distans in infinitum'—*Quaest. Met.* xi, p. 50:35.

The other activities of the Divine will, namely, the conservation and the direction of the universe, are not professedly expounded by Bacon.

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[1] Steele's edition reads 'volitium'.

JOHN PECHAM

JOHN PECHAM

JOHN PECHAM, the date of whose birth is uncertain, derived his name from Patcham in Sussex and was educated at Oxford. While at Oxford he became a Franciscan about 1250, and before 1257 was transferred to Paris where he received the doctorate. He remained there, perhaps uninterruptedly, till 1269–71 when, as regent master, he disputed with St. Thomas on the question of the plurality of forms in man. To these years at Paris Professor Little[1] assigns his lectures on the *Sentences*, most of his *Quaestiones quodlibetae*, and his *Tractatus pauperis* which was a reply to Gerard of Abbeville.

On his return to England Pecham succeeded Thomas Bungay as lector to the Oxford friars. Shortly afterwards he was made the ninth provincial minister of England, and by about 1277 was appointed lector at the Roman Curia. In 1279 he again returned to England to succeed, as archbishop of Canterbury, the Dominican Kilwardby,[2] now raised to the dignity of a cardinal. Pecham died on 8 December 1292.

THE RELATION OF PECHAM TO HIS CONTEMPORARIES

The interests of Pecham, like those of Bacon, are more closely akin to those of Grosseteste and of Adam Marsh than to those of Thomas of York. That he might have been a pupil of Adam Marsh is suggested by Adam's intimate knowledge of his learning and character,[3] but whether he was ever a pupil of Bacon is uncertain, for Pecham would have left for Paris about the time that Bacon returned to England. In any case, by 1272, when Pecham became lector at Oxford, Bacon had written his chief works and from these Pecham seems to have drawn freely, especially for his optics. His academic contact with Bonaventura,[4] previous to the latter's appointment in 1257 as Minister General to the Franciscans, strengthened the Victorine and

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[1] 'The Franciscan School at Oxford' in *Arch. Fran. Hist.*, 1926, p. 853.

[2] As M.A. of Paris, Kilwardby entered the Dominicans at Oxford between 1240–5 and soon succeeded Robert Fishacre as theological master. After having been the English provincial from 1261, he was raised to the archbishopric in 1273. He died in 1279.

[3] Cf. *Mon. Fran.* i, p. 256.

[4] On this see Little, *loc. cit.* and the introduction to his edition of the *Tractatus tres de paupertate* in *Brit. Society of Franciscan Studies*, vol. 2, Aberdeen 1910, p. 19.

Augustinian teaching which he had imbibed at Oxford. Thus in a letter to the Bishop of Lincoln[1] Pecham advocates the sane and solid doctrines of Alexander of Hales and of Bonaventura, and an adherence to the teaching of Augustine (especially to the theories of the *rationes seminales*, the potencies of the soul, and the eternal light), on the ground that this had always been the philosophy of the Order.

Nevertheless, Pecham was not ignorant of the value of the new philosophical influences at work. Avicenna is cited on many occasions, and Aristotle, as will be seen in the following exposition, is utilized when his teaching is compatible with the doctrines of the Church. If with the Dominican Kilwardby, who was likewise a great admirer of Augustine (cf. p. 191, n. 1), Pecham opposes the Aristotelian conception of the unity of the substantial form adopted by St. Thomas, it is because he considers the independence of the rational soul to be at stake.[2] In fact, Pecham is pre-eminently a theologian occupied with practical ecclesiastical problems and enamoured of optics, but interested in philosophical speculations chiefly in so far as they bear on theology. The main reason for including him in this study of Oxford philosophers is the prominence that he gives to the problem of the plurality of forms.

THE WORKS OF PECHAM

A complete bibliography of the works of Pecham is given at the beginning of the edition of three of his treatises on poverty in the *British Society of Franciscan Studies* Series, vol. ii. Of these I have consulted:[3]

Tractatus Tres de Paupertate. Ed. Kingsford, Little, and Tocco in the aforesaid series, vol. ii, Aberdeen 1910.

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[1] *Registrum Epistolarum Fratris Johannis Peckham*, ed. Martin, London 1882, vol. 3, p. 901.

[2] That he was not instigated by anti-Dominican prejudices is borne out by the respect in which the Dominican Trivet (d. 1328) held him: 'Frater Ioannes de Pecham, Cicestrensis dioecesis, de ordine Minorum, venit in Angliam, a domino papa in Cantuariensem archiepiscopum consecratus. Hic in Parisiis in theologia rexerat, et Oxoniae lectiones suas resumpserat; deinde minister provincialis Angliae, ac tandem lector palatii in Romana curia factus fuit, qui ordinis sui zelator erat praecipuus, carminum dictator egregius, gestus afflatusque pompatici, mentis tamen benignae, et animi admodum liberalis'—*Annales*, ed. T. Hog, London 1845, p. 299.

[3] It will be observed that the probably fruitful commentary on the *Ethics*

Registrum Epistolarum Fratris Iohannis Peckham. Ed. Martin, London 1882, 3 vols.

Perspectiva Communis, Coloniae 1627.

Quaestiones Quodlibeticae. (*a*) Florence, Bibl. Naz. MS. Conv. Soppr. (S. Marco), I. 1. 3. This vellum MS. in a clear hand of the late thirteenth century measures 240 mm. × 325 mm. and comprises 66 folios of two columns with occasional *lacunae.* On the reverse side of the flyleaf, in a hand later than the text, is—*Quaestiones fratris Iohannis de Peccano*, and on f. 19^{v}—*Haec sunt quaestiones disputatae et determinatae per fratrem Iohannem de Pecham Parisius.* The text lacks both a heading and a colophon. A list of the questions treated is given in Spettmann's introduction to his *Iohannis Pechami Quaestiones Tractantes de Anima*, Münster 1918, p. xxii. The folios edited by him are ff. 21^{r}a–30^{v}b.

(*b*) Merton College MS. 96, a vellum MS. of the fourteenth century measuring 8½ in. × 14 in. and comprising 270 folios, includes twenty-six theological questions, the titles of which are printed by Martin in his edition of the *Epistolae*, vol. iii, p. lxxv.

Quaestiones Disputatae. Florence, Bibl. Laur. Plut. XVII. sin. cod. 7. This vellum MS. of the late thirteenth century, measuring 235 mm. × 345 mm., was, according to a partly erased note on the last folio, formerly the property of the Franciscan convent at Florence. *Iste liber . . . ad conventum fratrum minores de flor. . . .* The folios of Pecham's *Quaestiones*, which cover ff. 27^{r}a[1]–50^{r}b, have no title, but f. 50^{r}b has the important colophon—*Explicit Quodlibet fratris Iohannis de Pecham quod in romana curia disputavit.* A list of the questions is given by Spettmann, *loc. cit.*, p. xxix, and ff. 27^{r}a–37^{v}b have been edited by him in that work. The questions on ff. 37^{v}b–8^{r}b have been edited after a Monte Cassino MS. in *Bibliotheca Casinensis seu Codicum Manuscriptorum*, vol. iv, Monte Cassino 1880, pp. 216–18. The question on f. 38^{v}a–9^{r}a was edited in *De Humanae Cognitionis Ratione*, Quaracchi 1883, pp. 179–82.

Super Magistrum Sententiarum. (*a*) Book I in Florence, Bibl. Naz. MS. Conv. Soppr. (S. Croce) G. 4. 854, a vellum MS. of 128 folios, measuring 190 mm. × 250 mm., probably of the end of the thirteenth century. On the reverse of the flyleaf is—*Hic liber est conventus sancti Crucis de Florentia ordinis minorum. Primus*

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has been ignored. This was done by reason of its debatable authorship—cf. Spettmann, 'Der Ethikkommentar des Johannes Pecham' in *Festgabe zum* 70. *Geburtstag Clemens Baeumkers* (*Beiträge* Suppl. II, 1923, p. 225 f.) and A. Pelzer, 'Les versions Latines des ouvrages de Morale conservés sous le nom d'Aristote en usage au xiii^{e} siècle' in *Rev. Néo-Scol.*, 1921, p. 316 f.

[1] Spettmann in his *Quaestiones de Anima*, p. xxviii wrongly reads 'f. 17^{r}.'

Iohannes (sic) *de Perciano*, and at the top of f. 1^{r}—*Primus fratris Iohannis de Pichano*. The explicit on f. 126^{r}a runs—*Explicit primus liber fratris Iohannis de Pechan*, and below this is written—*Iste liber est ad usum fratris . . .* , a remark sometimes found in manuscripts set aside for the use of an individual who was usually the lector. On f. 128^{v}, at the end of the index to the questions, we find—*Iste primus fratris Iohannis de Pichano est ad usum fratris . . . ordinis fratrum minorum . . . florentia*, and lower down—*Iste primus fratris Iohannis de Pichano est conventus . . . quem ad . . . de voluntate conventus, cum esset guardianus praedicti conventus . . . donum factum per fratrem Gonsalvum generalem ministrum.* The folios edited by Spettmann (*loc. cit.*) are ff. 18^{v}a–21^{v}b, 30^{v}a–2^{r}a, 33^{r}b–4^{v}b, 57^{v}b–8^{v}a.

(*b*) Book IV, Bodley MS. 859. Vellum MS. of the fourteenth century measuring 8½ in. × 12 in. Pecham's work, in a beautiful Gothic script, covers ff. 332–79. The heading runs—*Pecham super quartum Sententiarum*. There is no explicit.

THE THEORY OF BECOMING

Pecham follows his predecessors in regarding the factors involved in becoming as two *secundum rem* and three *secundum rationem*, privation or potency making the third factor and being matter in its dynamic aspect. 'Potentia ergo materiae primae nihil dicit nisi aptitudinem eius ad formam. Quae relatio eius accidens est, et relatio, sine qua materia nec intelligi potest ⟨nec⟩ esse, cum tantum intellectus possit hanc ab illa distinguere. Quod si obiciat contra materiam primam esse compositam, respondeo quod ex subiecto et accidente non fit unum. Et obicienti quod materia recipit relationem, responderi potest per interemptionem, proprie sumendo receptionem. Hoc tamen consequi dico, quod materia potest recipere hanc relationem per ipsam suam essentiam. Arguenti quia tunc materia est sua potentia, respondeo: secundum quid et simpliciter, quia esse potentiam ad hoc non est potentiam propriam, quia materia, de qua loquitur Philosophus, est principium transmutationis in alio secundum quod est aliud'—*Text*[1] 205: 21.

This potency is passive inasmuch as matter is both obedient to God and a 'principium rei fiendae et non factae' (119:1), but active inasmuch as matter stands in essential relation to form (205: 15, *Sent.*[1] f. 117^{v}a). 'Privatio duo dicit, scilicet carentiam formae et aptitudinem ad eam. Quantum igitur ad carentiam erit ibi privatio, sed quantum ad aptitudinem transmutationis non, quia quaelibet ibi forma terminabit suae materiae appetitum'—118:31. The appetite or positive ordering in matter may derive its full significance from form, but since it possesses a proper nature rooted in the essence of matter, it has of itself an 'actum essentiae incompletae ordinatum principaliter ad receptionem formarum'—*Quaest. Laur.*[2] ff. 38^{r}a, 43^{v}b. This appetite or *potentia diminuta*, as Pecham terms it, is the *ratio seminalis*—a *sine qua non* for generation. Hence we read, 'Omnia quae producit natura sunt potentialiter etiam seminaliter in materia. Unde si forma ignis non esset in aere in potentia, nunquam ex aere fieret ignis'—*Sent.* f. 47^{v}b.

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[1] This 'text' or a reference to only a page number should be understood as referring to Spettmann's edition of *Quaestiones de Anima*.

As to the agent's part in actualizing the forms which exist potentially or *seminaliter* in matter, Pecham merely remarks that the agent is one of the causes involved in generation (126: 17) and that its nature is communicated in its activity (*Sent.* f. 96^{v}a); thus we are left to conclude that he agrees with Bacon that the agent does not merely excite the *rationes* to develop themselves.

TYPES OF BECOMING

In his casual references to creation, animate generation and alteration, Pecham makes no contribution to the views of his predecessors—cf. 114:7; *Sent.* f. 32^{r}a. As regards inanimate generation, he admits the possibility of one element being generated from another (146:16) and gives a clearer theory than Bacon of how the elements that can be regained from a mixture remain in that mixture.[3] 'De miscibilibus in mixto dicendum quod miscibilia non sunt ibi in specie sua, sed sunt ibi transmutata. Forma enim mixti est forma substantialis corporis elementati . . . Etiam de unoquolibet elementorum potest educi forma mixti. Miscibilia ergo in mixto manent corpus unum, et non manent corpora specie diversa. Dicuntur etiam miscibilia esse in mixto in potentia accidentali, non quia forma mixti a forma elementari differat solo accidente, sed quia soluto prohibente, i. e. destructa forma mixti, elementa continue moventur ad locum suum'—131:31.

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[1] All such references refer to Lib. I as found in the Florentine *Bibl. Naz. MS.*

[2] All such references refer to the *Quaest. Disp.* in the Florentine *Bibl. Laur. MS.*

[3] This subject is introduced here because Pecham's cosmological doctrines are not complete enough to justify a separate section.

In addition to the above types of becoming Pecham mentions transubstantiation. This involves neither the permanency of *materia propinqua* as is the case in alteration, nor that of *materia remota* as in generation; it means a change of the whole substance of the bread into the whole substance of the body of Christ, the accidents of the bread alone remaining permanent—*Sent.* v, f. 345^{v}a; *Quaest. Naz.*, ff. 17^{r}b, 8^{v}a.

MATTER IN ITS STATIC ASPECT

Pecham's contribution to the Franciscan treatment of matter in its static aspect lies in his theory of the possibility of matter existing apart from form. His predecessors, as we have seen, held that although matter has its own essence, it does not exist apart from form. Pecham, agreeing with this, proceeds to ask whether matter *could* exist apart from form.

Some men, arguing from the position that *esse est a forma*, contend that not even the infinite power of God could cause matter to exist *per se*, because the existence of the *non esse* of matter as an *esse* would be contradictory. Again, they say, since the entity of matter is only *in potentia*, it could not exist without its form or actuality any more than man without animality, because act is prior to potency—*Quaest. Laur.* f. 37^{v}b. Before commenting on these arguments Pecham states his own position. God is the cause of all beings whether He produces them immediately by creation or mediately by means of created agents. He produces matter immediately and not *per formam*, and though He conserves it in *esse completo*[1] *mediante forma*, if He so willed, He could cause it to exist without form, since 'in infinitum plus dependeat materia a creatore quam a forma' —*ibid.* f. 37^{v}b. Pecham continues, 'Item certum est quod materia sit alia essentia quam forma, cum materia et forma sint duo principia essentialiter differentia. Deus autem omnia essentialiter diversa potest separare, cum eiusdem sit componere et dividere, posset ergo si vellet facere materiam esse sine omni forma, multoque magis est hoc possibile quam accidentia, quorum esse est in ⟨subiecto esse⟩, esse sine subiecto. Ratio autem quare potest facere accidentia sine subiecto est quia accidentia plus dependent a Deo qui est causa prima, quam a subiecto quod est eorum causa secunda: ergo eadem ratione, immo multofortius est ita a parte ista quia plus esse essentialitatis habet materia quae est substantia quam accidentia. Et aliud dicere est nimis divinae potentiae derogare. Unde omnes essentias quas facit compositas, facere potest divisas'—*ibid.*, f. 37ᵛb.

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[1] The Monte Cassino edition (p. 216) reads 'composito' but 'completo' seems better.

Replying to the first contention of his opponents, Pecham asserts that both matter and form have their own entities, that of matter being an *esse principiati* and that of form an *esse principii*, and that consequently, although 'forma dat materiae esse specificum et completum, non dat ei esse essentiae completae, cum sit principium essentialiter aliud a forma.' To the second he replies that it is true that matter is in potency to form, but that potency is founded in the very essence of matter. Therefore, 'Quamvis sit in potentia ad formam, est tamen essentia quaedam diminuta in actu, sicut est etiam principium et illum actum essendi non habet a forma, sed a creatore, sic autem habet essentiam, scilicet a creatore vel datore; essentiae autem est esse sicut lucis lucere. Quia igitur a propria natura habet posse capere formam istam, potentiam non habet a forma quae radicatur in essentia ipsius materiae. Habet igitur actum essentiae incompletae ordinatum principaliter ad receptionem formarum. Unde Augustinus *Contra Faustum*:[1] "ylem greci cum de natura disserunt et materiam quandam rerum diffiniunt nullo prorsus formatam sed omnium formarum corporalium capacem;" hoc autem actu essentiae distincto impossibile est esse potentiam'—*ibid.* f. 38ʳa, cf. f. 43ᵛb; *Quaest. Naz.*, f. 13ʳa; *Sent.* f. 18ʳb.

Like Bacon and Thomas of York, Pecham holds that this matter with its own incomplete actuality is not synonymous with that transmutable matter which exists in terrestrial beings and which is highly composed from a *forma generalissima* to the *species specialissima*—Cf. *Sent.* f. 108ʳa; *Quaest. Naz.* f. 17ʳb.[2] Besides this *materia physica*, as he terms the subject of substantial and accidental transmutation (*Sent.* f. 32ᵛa), there is the matter of heavenly bodies which, being fully perfected by its form, is free from all privation[3]—*Sent.* f. 8ᵛb; *Text* 24: 32, 118: 38 and

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[1] xx, 14, *P.L.* 42: 379.

[2] This composition is only mentioned and not treated at length in these passages.

[3] Because of this, he follows Thomas of York in saying that the matter of celestial bodies is better called 'subiectum' than 'materia'.

128: 10. In addition to both of these types which are included under the phrase 'materia signata non nuda' (*Quaest. Naz.* f. 17^{r}b) there is the matter peculiar to spiritual beings. This matter, though possessing the greatest degree of actuality (*Sent.* f. 108^{r}a), is capable of as much diversity as *materia signata non nuda*. 'Materia non habet tantum diversitatem in partibus integralibus et quantitativis. Immo, cum ipsae partes quantitativae sint substantiales, prius sunt secundum naturam ⟨et⟩ prius est differentia partium substantialium materiae quam quantitatum. Dicendum igitur quod in ipsis substantiis spiritualibus est diversitas partium materiae substantialium, licet non sit diversitas dimensionalium'—187: 35. Lastly, both the matter of corporeal beings and that of spiritual beings are differentiations of *materia prima*—11:14.

FORM IN ITS STATIC ASPECT

Pecham follows our previous philosophers in thinking of form as that which gives actuality, that which imparts action, and that which is the object of knowledge[1]—205: 12. As to the first property, he adopts the opinion of Grosseteste that in the process of actualizing matter forms may be (1) extended throughout every part of the whole and in their operation dependent on the whole, e.g. the form of fire, or (2) not extended in the sense that every part of the whole has the nature of the whole, but yet dependent because the same operation is communicated to all parts of the whole, e.g. the vegetative and the sensitive forms, or (3) neither extended nor dependent, e.g. the rational form, for not every part of man is man and not every part of man understands—190: 1.

Concerning the coming to be of an actuating form, we have seen (p. 179) that Pecham, like Bacon and Thomas of York, regards it as an eduction from the potency of matter, and therefore there is no need to comment on his remark, 'forma naturalis necessario est consequens operationis naturalis et educitur de potentia materiae'—*Sent.* f. 56^{v}a. As to whether the educed form appears instantaneously, Pecham shows his agreement with Bacon by observing, 'Agentia non inducunt formas suas ⟨in⟩ instanti in materia transmutata, nisi quia motus praecessit quem mutatio consummat'—*Text* 149:1; *Quaest Laur.* f. 43^{v}b.

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[1] This third property will be considered in the section on psychology.

The actualizing form that is educed is primarily an individual form and secondarily a universal form. 'In creaturis quod producitur primo per operationem est substantia singularis; quod vero per intentionem principaliter productum est substantia universalis, quia natura intendit speciem salvare. Unde forma communis in creaturis generatur et corrumpitur per accidens'—*Sent.* f. 26^{v}b. Pecham holds that the universal that thus comes to be *per accidens* is that in which singular substances of the same species agree. 'Puto enim quod universale est vere [1] res et natura differens a particulari aliquo modo; et quae sunt in specie una, conveniunt in re et natura, non in accidente tantum. Et sic non repugnat universali in natura esse in individuo signato, nec repugnat similitudini universalis esse in intellectu signato . . . universale non est accidens et formatio intellectus, sed res differens a singulari, sicut totum a parte, quia ita est in uno quod nihilominus in alio'—*Text* 55: 25 f. This view of the external existence of the universal as a proper entity comes very near to Bacon's excessive realism, especially in the light of another incidental statement, 'Tota substantia generis est in quolibet particulari. Nec tamen est particularis, quia respondent sibi sua particularia; sicut haec materia et haec forma faciunt hanc substantiam, ita materia in hac materia et forma in hac forma faciunt substantiam, quae est genus'—55: 6.

In any case, this externally existent universal is as numerous as are individuals, and though it could not constitute the individual merely by being united to matter, it may be regarded as a secondary constituent because it is contracted by the proper principles of the individual—*Sent.* f. 66^{v}a. These proper principles mean, as we have seen, both individual matter and individual form, and, therefore, Pecham can write, 'Petrus et Paulus . . . conveniunt in specie vel in substantia communi speciei, et differunt in substantia individuali'—*Text* 54: 10. The statement in *Sent.* f. 66^{r}b that 'numerus creaturarum non tantum respicit suppositorum unitatem vel diversitatem sed etiam formam constituendi. Unde dicit philosophus quod actus dividit' must be taken then in conjunction with that which runs—'Nec materia est tota causa individuationis, cum materia ponatur una in multis; sed complementum individuationis est a forma'—*Text* 51: 1. The possibility of an individual having more than one universal and one individual form will be dealt with under psychology, for Pecham regards the question as having its fullest significance where man is concerned.

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[1] Spettmann reads 'non est', but from what follows, it is clear that the alternative 'est' in his foot-note is the correct reading.

The last topic connected with the actualizing power of form is the composite. This, we are told, is the term of generation—*Sent.* ff. 8^{v}b, 27^{r}a. As an *ens per se et ad se* (*Sent.* f. 71^{r}b), it involves a substance composed of matter and form, and accidents which, though they are caused by and characterize the substance, differ from the substance in essence, as is obvious from the fact that by Divine power they are separable from substance—*Quaest. Naz.* f. 13^{r}a.

Such are Pecham's sketchy statements of the actualizing power of form. On the manner in which form confers operations, there are two annoyingly brief remarks:

(*a*) In discussing whether the glorified body has the nature of light he puts forward the objection, drawn from St. Ambrose's view of light, that if it has, it will act instantaneously; to this he replies, 'Dicendum quod Ambrosius vult dicere lucem non esse creatum in numero, pondere et mensura ut cetera, quia lux est generalis motor omnium formarum, et ipsa a nulla movetur forma corporali, nec est luci praefixus limes suae multiplicationis'—*Text* 144: 30. The 'generalis motor omnium formarum' savours strongly of Grosseteste and among the passages suggesting that Pecham had grasped the doctrine of Grosseteste and Bacon that light is an energy we may enumerate: *Sent.* f. 55^{r}a—'Lux potest considerari tripliciter—in se sive in fonte suo, vel in perspicuo, vel in extremitate perspicui scilicet in colore illuminato; et primo modo dicitur proprie lux, secundo modo lumen et tertio ypostasis coloris'; *Text* 131: 12—'Lux in medio habet duo genera dimensionum; habet enim dimensionem intentionalem a sua origine, et realem vel naturalem ab aëre'; and lastly, *Quaest. Naz.* f. 40^{r}b where, after denying that *lumen* is a body because two bodies cannot occupy the same place, he adds—'Lumen est in medio non a medio sed ab origine fontis scilicet luminis'. But whether Pecham thought of light in quite the same sense as Grosseteste's 'forma prima corporalis ⟨quae⟩ est primum motivum corporale' we do not know.[1]

(*b*) In denying that the rational soul can be educed from matter he says, 'Operatio naturalis est operatio virtutis corporalis quae non ⟨potest⟩ attingere ⟨nisi⟩ ad formam corporalem, quae vel extenditur in corpore vel dependet a corpore'—*Text* 7: 23. It would be interesting to know what Pecham understood by 'virtutis corporalis'.

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[1] On this his *Perspectiva* does not enlighten us.

PSYCHOLOGY

In his interpretation of man as a compound of body and soul Pecham closely resembles Bacon. The body is constituted by the four elements and by mixtures unified by a *forma corporeitatis* (*Quaest. Laur.* f. 43^{v}a) and later vitalized by the vegetative and the sensitive forms that are educed from the potency of matter. Still later, the rational soul, created and infused by God, comes to perfect these incomplete forms, and since it is united to the body *ut perfectio* as well as *ut motor* (*Text* 34: 10), it is rightly regarded as the substantial form of the body, being present in the totality of its essence in every part of the body [1]—*ibid.*, 188: 19, 57: 24. Hence, as Aristotle says, body must be included in the definition of soul—*ibid.*, 50: 24. Pecham continues, 'Etiam Augustinus dicit *De Quantitate Animae* [2] quod "anima est substantia quaedam rationis particeps regendo corpori accomodata". Unde definitur econtra corpus humanum, si per animam definitur, quia sine anima non est corpus nisi aequivoce. Ergo corpus et anima cum definiuntur per alterutrum, non sunt duo diversa'—*ibid.*, 50: 26.

As far as the body is concerned, this intimate relation is possible because, when generated, the body cannot remain stable without the rational soul to which it, by its very nature, stands in essential relation—*ibid.*, 57:4. As far as the soul is concerned, the intimacy is possible because the soul desires to exercise itself in body and to communicate to it its power—*ibid.*, 101: 31, 140: 2; even when separated, the soul cannot possess an *esse stabilitum, plene et absolute perfectum* without the body to which it always inclines—*ibid.*, 187: 17.

However, in spite of this intimate relation between the body and the soul, the actuality of the soul is not exhausted as the form of the body, and the reality of the body is not constituted solely by its office of serving as matter for the soul. With regard to the former Pecham maintains that although the soul is a substantial form *quantum ad esse primum*, in respect of its *actus secundus* it is independent, for its proper operations in no way depend on bodily organs—*ibid.*, 56: 2; *Sent.* f. 29^{r}a. Again, the soul, both in its substance and operation, is separable from the body—*Text* 37: 37. Lastly, its independent being follows from its position in the hierarchy of forms, for while the elemental form perfects its matter by being both extended and dependent, and the vegetative and sensitive forms perfect their matter by being extended but not dependent, the rational soul perfects its matter without being either extended or dependent—*Text* 190: 1. Concerning the reality of the body, Pecham contends that the body's proper forms, being truly perfected by the rational soul, are not corrupted by its advent, but remain distinct from, though subordinate to it—*ibid.*, 9: 33. He further observes that the production of the body of the first man was prior to the in-breathing of the spirit of life and concludes from this that body has its own proper actuality—*Quaest. Laur.* f. 43^{v}a.

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[1] The terminology of *Quest.* 26 (Spettmann's edition, p. 188) in which the situation of soul is discussed is almost identical with that in Grosseteste's discussion of the same problem.

[2] c. 13, *P.L.* 32: 1048.

Do these distinct realities of the two main factors in the human composite destroy the intimacy that Pecham previously has posited? This question introduces one of the greatest controversies of Pecham's day, namely, that of the plurality of forms in man.

Before the introduction of Aristotle's works other than the logical treatises, Scholastics, as a whole,[1] supporting Plato and Augustine, regarded body and soul as two independent entities extrinsically united to constitute man. After that introduction, this theory was either superseded by the Aristotelian conception of the relation between the body and the soul as one of matter and form, the body as matter having no reality apart from the soul as form, or was modified to express the opinion that, although they may be related as matter to form, both body and soul have a reality independent of each other, the soul because it alone is created and immortal, the body because matter as well as form has its own entity.

The first position, which adopted Aristotle unconditionally, is usually held to have been originally proclaimed by St. Thomas,[1] but Pecham, writing to the Chancellor and University of Oxford in December 1284[2] and to certain cardinals in January 1285,[3] mentions it as one of the erroneous opinions maintained at Oxford in spite of the fact that it had been condemned by Kilwardby. This, of course, does not necessarily contradict the assumption that St. Thomas originated the theory and that later it spread to the Oxford Dominicans; indeed, Pecham, in the same letters, particularly connects the theory with 'frater Thomas sanctae memorie de Aquino'. However, when we come to speak of the plurality of animate forms in man (cf. pp. 189–92) we shall see that even before 1248 the Oxford pluralists were opposed by the supporters of one single form for each composite. The pluralists most probably included Grosseteste, Adam Marsh, and Thomas of York, but their theory does not appear in its elaborated version until Bacon's day and certainly not in its developed version until Pecham, under opposition from St. Thomas, was led to consider its implications. If we return now to Pecham's interpretation of the relation between body and soul we shall see the theory of the Pluralists in its fundamental form.

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[1] Cf. Spettmann, *Die Psychologie des Iohannes Pecham*, Münster 1919 (*Beiträge* series, Bd. 20, p. 19 f.).

The point at issue concerns the *forma corporeitatis* which Scholastics generally admitted to be the highest form generated in the human body. Is it necessary to suppose that this form remains after the *forma intellectiva* has been infused into the embryo? Pecham maintains that the true natures of body and of soul can be preserved only on the supposition that the *forma corporeitatis* does remain, for the nature of the soul requires that as a created and immortal being its *esse* should be something over and above that of body, and the nature of the body requires a continuance of the *forma corporeitatis* if it is to be one of the essential components of man.

The proofs that the *forma corporeitatis* is preserved are to be found in many theological doctrines. If it did not co-exist with the *forma intellectiva*, the resurrection of Christ or any miraculous restoration to life would have no meaning because the dead body would not be numerically and specifically identical with the original living one; what is common would be only the matter or the accidents and not the substantial form, the essential factor. With this, too, would fall the ground for the veneration of relics, since there would be no true identity between the relic and the living body. Again, if the persistence of the *forma corporeitatis* be denied, the Eucharistic doctrine would be undermined because the whole substance of bread is converted into the whole body of Christ and not only into its matter; and seeing that the intellective form of Christ is not involved, what would be that form which is to render possible the presence of the entire body of Christ? Further, if a consecration occurred during the three days of Christ's death, the transubstantiation of the bread must have referred to the body into which a new specific form had been introduced—*Registrum Epistolarum*, vol. iii, p. 840. Of two further arguments for a *forma corporeitatis* in the *Quaest. Laur.* f. 43^rb that drawn from the priority of the body of the first man as compared to his soul has been already stated (cf. p. 186); the second one rests on Aristotle's definition of soul as 'actus corporis organici physici potentia vitam habentis'.

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[1] Cf. M. De Wulf, *Le Traité de Unitate formae de Gilles de Lessines*, Louvain 1901, p. 31.

[2] *Registrum epistolarum*, vol. iii, letter 622.

[3] *Ibid.* letter 625.

For traditional and theological reasons, then, a *forma corporeitatis* coexisting with the *forma intellectiva* must be admitted. Consequently, where man is concerned that which the intellective form informs is not *materia prima* but *materia prima* as already formed by a *forma corporeitatis* which, having no contrariety to the rational soul, need not be corrupted by its advent—*Quaest. Laur.* f. 43^va. Therefore, the intellective soul is not the only form in man.

But is this theory, so well founded, to fail before the test of natural philosophy? Does it mean that man is only an aggregate of body and soul without any true union? That such is not the intention of Pecham is obvious from what we hitherto have said about his view of the intimate relation between body and soul (cf. p. 185). Pecham claims that the unity of the composite is preserved by the subordination of the inferior form to the higher form, so that we have in the composite not a juxtaposition of forms but a hierarchy. Thus in discussing the Manichaean position he writes, 'Nullo modo concedendum est duas animas esse in homine'—*Text* 35: 37; again—'Sunt in homine formae plures gradatim ordinatae ad unam ultimam perfectionem, et ideo formatum est unum'—*Quaest. Laur.* f. 43^{v}a; further—'Anima rationalis . . . complet omnes formas naturales et perficit eas, ut esse et operari possint operationes consonantes speciei'—*ibid.*, f. 46^{r}b. It is on account of these intermediary forms, and not because he wishes to revert to a Platonic dualism, that Pecham observes, 'Haec unitas sufficit creaturae, qua aliquid componitur diversis principiis. Nullum autem creatum est vere et perfectum unum sicut patet ex Augustino in pluribus locis'—*Text* 38: 1, and 'Infinita distantia corporis a spiritu'—*Quaest. Laur.* f. 41^{v}b. This is clear from a further statement, Forma unitur materiae sine omni medio distinguente, non tamen sine medio disponente. Est autem dispositio propria ad intellectivam vitam anima vegetativa et sensitiva'—*Text* 37: 31.

This last quotation reminds us that in addition to the *forma corporeitatis*, which has been singled out for the purposes of exposition because around it the contemporary controversies raged, there are other forms in the human composite. The four elements in some sense (cf. p. 179) remain in and subordinate to that mixture which is '*propria complexionis humanae*'—*Quaest. Laur.* f. 43^{v}a; this mixture, in its turn, remains subordinate to the *forma corporeitatis*, and the *forma corporeitatis*, again, to the vegetative and the sensitive forms. These last two forms provided a second controversial point, for, since they are animate forms, it was easy to suppose that their activities could be readily assumed by the infused rational soul. Bacon, as we have seen, made them virtual parts of the rational soul, but Pecham, always mindful of their origin (on account of which he calls them 'quasi materialia'—*Text* 9: 8), never raises them above the dignity of disponents for the rational soul. Thus he proclaims, 'Nihil corrumpitur nisi per contrarium vel subtractionem. Anima autem rationalis adveniens non habet oppositionem cum sensitiva, quae fuit dispositio necessaria ad ipsam. . . . Manet sensitiva genita et fit materialis dispositio ad intellectum ab extra venientem'—*Text* 10: 28; and 'Sicut corpus ordinatur ad animam, sic una anima ad aliam'—*ibid.*, 35: 41, 37: 5.

This relation between the vegetative and sensitive forms and the rational soul seems to have been the original form in which the question of the plurality of forms appeared. Thus Robert

Fishacre, the Oxford Dominican who, together with Robert Bacon, succeeded John of St. Giles,[1] the first Dominican theological master, and who died before 1248, detailing the theories held in Oxford during his day, writes, 'De anima multiplex est opinio. Estimant enim aliqui quod vegetabilis et sensibilis et rationalis sunt una et eadem substantia, et variantur tantum secundum operationem: sicut anima sensibilis est unica substantia habens multas operationes scilicet videre, audire et huiusmodi. Contra quod merito sic opponitur: scilicet, omnis actio una causam habet unam formalem, et omnis forma substantialis unicam habet actionem. Igitur, si sunt actiones essentialiter differentes, aut erunt actiones formarum essentialiter differentium, aut ad minus organorum essentialiter differentium. Igitur, si sentire, vegetare, intelligere sunt essentialiter diversae operationes, patet quod cum per organa non differant, erunt formae essentialiter differentes a quibus causantur. Non est autem simile de eo quod est videre et audire, quippe istae operationes non differunt essentialiter, sed tantum ratione instrumentorum diversorum. Idem enim agit anima in oculum, cum videt oculus, quod agit in aurem cum audit auris: nec differt haec actio ab illa nisi sicut liquefacere et constringere quae sunt una actio solis.

Propterea, alii posuerunt quod in homine est anima unica substantia numero, habens tamen formas invicem ordinatas diversas; et ab una forma egreditur actus vegetationis, ab alia actus quod est sentire, a tertia actus quod est intelligere; ut forma proximior materiae sit illa a qua est vegetatio, et forma ei superaddita sit forma nobilior, scilicet a qua est sentire, et nobilissima a qua est intelligere; ut respectu huius nobilissimae sint duae formae praecedentes, quasi dispositiones materiales, et talem quidem habere videntur habitudinem quia illud quod est genus non praedicat nisi formam a qua est sensus, rationale vero, tanquam eiusdem generis differentia, formam nobiliorem ei superadditam. Sed contra hoc merito opponitur: Respectu eiusdem formae ultimae necessario non est nisi eadem dispositio naturalis praecedens. Igitur cum homo et angelus communicant in ultima forma, quae est a qua est intelligere, in utrisque, scilicet homine et angelo, erit eadem dispositio materialis. Sed in angelis non est vegetabilis vel sensibilis praecedens in eis

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[1] On the death of John a second chair of theology was established.

formam a qua est intelligere. Igitur non sunt hae formae se habentes ad formam a qua est intelligere ut dispositiones materiales. Et ad confirmationem quam posui de habitudine generis et differentiae dici posset quod illa forma a qua est intelligere non est differentia animalis; tunc enim angeli essent animalia; cuicumque enim inest differentia, et genus.

Propterea tertii ponunt quod sunt tres substantiae, et tria haec aliquid in homine a quibus sunt istae tres operationes; nec propter hoc sunt tres animae hominis, sed una anima constans ex tribus substantiis essentialiter differentibus, sicut una est manus constans ex nervis, ossibus et carne, quae essentialiter differunt. Cui plane contradicit in Libro *de Diffinitionibus rectae fidei*, cap 13. Sic enim dicitur ibi: Neque duas animas in uno homine esse dicimus, sicut Iacobus et alii Sirorum scribunt, unam animalem, qua animatur corpus et immixta sit sanguini, et alteram spiritualem, quae rationem ministret. Sed dicimus unam eamdemque esse animam in homine, quae et corpus sua vivificat societate et semetipsam sua ratione disponit, habens in se libertatem arbitrii ut in sua substantia eliget cogitatione quod vult.

Quae autem harum trium opinionum verior sit, diffinire non audeo. Li 'animae' igitur hic dicere potest quiddam commune dictis tribus, scilicet vegetabili, sensibili, rationabili, secundum tertiam opinionem: vel ipsam substantiam unam animae, secundum primam et secundam opinionem.' [1]

The first opinion was supported later by Roger Bacon and the second adopted by Pecham and his successors. The Oxford advocates of the third theory remain as yet unknown.[2]

From this original conception of a plurality of animate forms in man the pluralists would readily pass to the assertion of a plurality of corporeal forms, for on metaphysical grounds every

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[1] My attention was drawn to this by Martin's transcription (in *Rev. Néo. Scol.*, 1920, pp. 107–12) from MS. Ball. Coll. 57 f. 131^v. I have transcribed the Brit. Mus. MS. Reg. 10 B VII. f. 156.^{v} which varies in a number of places from Martin's reading and especially in the absence of 'Magister Augustinus' which appears only in Ball. Coll. MS. before the 'in libro de Diffinitionibus' of the third paragraph. The force of Martin's comment on this to the effect that 'it is remarkable that Robert here combats by means of a text attributed by all the Middle Ages to Augustine, the opinion defended as Augustinian by all the adversaries of St. Thomas' is thus weakened.

[2] In the section on Richard of Middleton reference will be made to this theory as held by Olivi, cf. p. 244, n. 1.

perfection was held to require a distinct form, on experiential grounds the elemental forms were known to remain in some way in the mixture and the body to have its own life both before the advent and just after the separation of the rational soul, on traditional grounds the *rationes seminales* meant an imperfect pre-adaptation for the form to be educed, and lastly, questions of faith implied a corporeal form. No wonder, then, that Kilwardby on 18 March 1277 included in his condemnation of thirty propositions circulating in Oxford the following: Item quod intellectiva introducta corrumpitur sensitiva et vegetativa: Item quod vegetativa, sensitiva, et intellectiva sunt una forma simplex; Item quod corpus vivum et mortuum est equivoce corpus, et corpus mortuum secundum quod corpus mortuum est corpus secundum quid; Item quod intellectiva unitur materie prime ita quod corrumpitur illud quod precessit usque ad materiam primam; Item quod vegetativa, sensitiva, et intellectiva sunt simul in embrione tempore.[1]

Having endeavoured to show why the Franciscans maintained the existence of other forms in man besides the intellective form, I pass to the consideration of the proper nature of the intellective form as abstracted from the body and the intermediate forms. 'Substantia animae dupliciter potest considerari, vel in quantum est spiritus, vel in quantum est forma corporis'—*Quaest. Laur.* f. 43^{r}a. The first question, which concerns the origin of the soul, has been answered already on p. 185 where it was stated that the rational soul is created and infused by God—*Text* 7: 7. Apart from theological reasons, Pecham believes that it must be created because no material power can exceed itself by producing an immaterial effect—*Quaest. Laur.* f. 43^{r}b. Among the erroneous solutions to this question he enumerates the traducianism of Tertullian,[2] the theory of a creation from the substance of God based on *Gen.* ii. 7—'inspiravit in faciem eius spiraculum vitae', and Origen's view of a creation of all souls out of nothing at the beginning of time.

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[1] These are propositions 7, 12, 13, 16, and 6 in Denifle, *Chart. Univ. Paris*, i, p. 558. Other interesting condemned propositions that show Kilwardby's Augustinianism are: Item quod forma corrumpitur in pure nichil; Item quod nulla potentia activa est in materia; Item quod privatio est pure nichil, et quod est in corporibus supra celestibus et hiis inferioribus—nos. 2, 3, and 4.

[2] Pecham's knowledge of Tertullian almost certainly came through Augustine.

The first he rejects because the soul is a simple substance and cannot be split up into separable parts (8: 13) and the second because God is simple and not subject to mutability (6: 33).

Not being generated, the soul must be incorruptible, for corruption applies only to that which is generated. But apart from this law of natural phenomena, seven other proofs of the immortality of the soul can be gathered from the writings of the saints and others. These are: (1) ex ratione obiecti moventis. Et haec est Augustini.[1] This means that reason, which has for its object eternal truth and understands by means of the eternal light, will be immortal because the object known perfects the knower—20: 17.

(2) ex ratione intellectualis operationis. Et haec est eius[2] sicut peripatetici philosophi. The intellect being able to operate without organs, as is clear from its power to reflect on itself, must be able to subsist without organs. Again, that which is moved by itself alone is subjected only to its own activity, and so the soul could be corrupted only by itself—20: 8 and 21: 16.

(3) ex ratione desiderii naturalis. Et haec est Anselmi[3] The soul desires beatitude as the fullness of truth and goodness—22: 5.

(4) ex ratione virtutis proficientis. Et haec est ratio Apostoli Petri in disceptatione contra Simonem Magum.[4] This implies that wisdom comes with age and a greater ability to judge comes from communication in the eternal light—22: 20.

(5) ex dignitate suae substantiae. Et haec est ratio Avicennae.[5] If the soul is not educed from matter, it cannot be corrupted—23: 10. Likewise, because it is not composed of contraries, the soul has not in itself the cause of corruption.

(6) ex ratione suae vitae. Et haec est Augustini.[6] Unlike the body, the soul does not derive its life from something external—23: 20.

(7) ex consideratione divinae providentiae, which implies the reward of virtue in the future life—23: 26.

Pecham, like Thomas of York and Bacon, thinks that this created and immortal soul with an entity independent of that of body must be a substance composed of spiritual matter and form. Some men, he says, may argue from the statement of Boethius [1] that a spiritual substance has no material foundation, that the soul need be composed only 'ex quidditate et esse' or 'ex quo est et quod est' and not of matter and form; but to them it may be objected that Boethius meant to exclude only such matter as that which is the subject of natural transmutation. Besides, if it be allowed that substance is a genus divided into spiritual and corporeal species, every substance that is in a genus must be composed of matter and form, because on the authority of the same Boethius in his *Super Praedicamenta* [2] genus is constituted by matter and form as its first principles—186:26 f. The existence of matter in souls is also supported by other authorities. Augustine in *Contra Manich.* i [3] says, 'Deus dicitur de nihilo omnia fecisse quia etiamsi omnia formata et de ista materia sunt facta, haec ipsa tamen materia de nihilo facta est.' [4] 'The Commentator' also holds that intelligible *esse* has something like to form and something like to matter, and that without the latter, there would be no plurality in abstract forms—49: 27. Such a composition in the soul need not undermine the possibility of the soul being the form of the body, as some suggest, for though the soul is an *aliquod ens particulare* (51: 8) with a proper *esse*, that *esse*, even in the case of the separated soul, is incomplete in itself and inclined to the body—187: 12 f.

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[1] Cf. *De Immort. An.* i, *P.L.* 32: 1021 and *Soliloq.* ii, 19, *P.L.* 32: 901.

[2] i.e. Augustine, *De Immort. An.* i, *P.L.* 32: 1021 and 1026. Spettmann's note on the text is wrong in suggesting that it should be Avicenna, *Six Nat.* v, c. 2.

[3] *Monol.* c. 69, *P.L.* 158: 215.

[4] Probably in the Clementine *Recognitiones*.

[5] *Six. Nat.* v, c. 4, f. 24^{v}a f.

[6] *De Immort. An.* ix, p. 16, *P.L.* 32: 1029.

Being composed of matter and form, the rational soul contains within itself the two causes contributing to individuation (cf. pp. 183, 199). Certainly the body could not be the cause of individuation, for, while the soul possesses a natural inclination to its body, the multiplication of bodies is only the 'occasio quare Deus animas creat et infundit'—57: 2. Like Bacon, Pecham does not comment upon Peter Lombard's theory of grades among rational souls [5]—57: 29; *Quaest. Laur.* f. 43$^{\text{v}}$a.

As an individual substance, the soul exercises its activity through its faculties of intellect, will, and memory. What can be said of the relation of these faculties to the soul? Unlike Bacon, Pecham does not regard them merely as diverse operations of the substance of the soul. Some kind of real plurality must be assumed if, as Augustine says, the soul is an image of the Trinity—192: 33. Hence Pecham declares, 'Comparando enim potentias ad essentiae unitatem est reperire consubstantialitatem, quia potentiae in una substantia radicantur. Comparando eas ad actum animae est reperire originem et aequalitatem. Unus enim actus est causa alterius, sicut actus memoriae causa est intelligentiae exprimendo in acie intelligentiae id quod est in thesauro memoriae,[1] et ab intelligentia procedit complacentia amoris. Et haec est quaedam aequalitas, ⟨quia⟩ de quolibet istorum sequitur modus alterius'—196: 17.

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[1] *De Duabus Naturis*, c. 6, *P.L.* 64: 1350.

[2] Not found.

[3] i, c. 6, *P.L.* 34: 178.

[4] Others passages from Augustine asserting the existence of matter in the soul are—*Conf.* xii, *P.L.* 32: 829, *Contra Manich.*, *P.L.* 34:178, and *Super Gen. ad Litt.* v, *P.L.* 34: 326. These are cited in *Text* 8: 20 f. to show that Augustine posited a *materia prima* that embraced both spiritual and corporeal beings.

[5] *Sent.* ii d. 32, c. 9, *P.L.* 192: 729.

The potencies, then, are neither absolutely the same nor absolutely different from the essence of the soul. They cannot be absolutely the same because in God alone are substance and potency or agent and action identical—204: 11; *Sent.* f. 23^{v}a. On the other hand, their distinction must not be taken to imply that they are accidents, for though a natural potency may be regarded as the aptitude of an instrument, and thus taken to be accidental, it more properly signifies an operative instrument of the soul; therefore, it must be rooted in substance and so possesses an *esse* of the same genus as substance—202: 27. Like Bacon, Pecham tries to express his view by calling the potencies 'virtual parts'. 'Quamvis anima sit simplex per carentiam partium integralium, habet tamen partes virtuales, vires scilicet et potentias'[2]—142: 28, 206: 31, 204: 12.

In turning to consider the intellect and its activities we shall see that Pecham leans more to the pure Augustinianism of Grosseteste than to the moderated form of it found in Thomas of York and Bacon. Intellectual knowledge, he claims, involves (*a*) the co-operation of the senses as its occasion, though not as its causes, and (*b*) the *lux aeterna*—*Sent.* f. 4^{r}b.

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[1] This seems to be his reason for saying elsewhere, 'ratio et voluntas diversae sunt potentiae, memoria vero et intelligentia unius potentiae scilicet rationes' —*Text* 207: 4.

[2] Adopting the *De Spiritu et Anima*, c. 13 (printed with the works of Augustine in *P.L.* 40: 789), Pecham takes 'potentias' to mean the instruments of the soul and 'vires' the aptitudes of these instruments, adding—'sicut differunt auris et oculus, aliter perspicuitas et radiositas in oculo'—206: 26 f.

As regards the first condition, the senses occasion the material phantasm, and this when stripped of its external material conditions is received into the assimilating intellect as the *species intelligibilis*—47: 9 f., 48: 21; *Quaest. Naz.* f. 39^{v}b. This species is not what is known but that *by* which we know the external world. '⟨Species⟩ rei visibilis corporalis . . . ostendit id cuius est species, nec tamen ostendit essentiam suam, nisi ut est alterius similitudo'—175: 30, 87: 20; *Sent.* f. 16^{r}b. Being that by which the external world is known, the *species intelligibilis* will be a likeness of the whole composite, which is to say, of its universal and of its singular natures; in fact, if the latter were not involved and we did not (as Bacon says) in some way know the singular (though not 'sub conditionibus individuantibus'), the universal could never be predicated of the singular because a universal species is not the sufficient *ratio* for knowing the particular here and now—*Quaest. Naz.* f. 51^{r}b; *Text* 54: 32, 56: 22.

The intellect thus perfected by knowing is the *intellectus materialis* which Pecham, like Grosseteste and Bacon, regards as being able to function both passively and actively—197: 34; *Quaest. Naz.* f. 39^{v}b. In the second way, it is able to abstract the species from the material phantasm and to assimilate it. 'Est in anima rationali aliquid activum, quod dico potentiam illam per quam nata est se in omnium intelligibilium similitudinem transformare. Haec igitur vis, si appelletur intellectus agens . . ., differt essentialiter ab intellectu possibili, sicut vis a vi, non sicut potentia a potentia. Credo enim quod sunt diversae vires eiusdem potentiae, sicut in eodem organo oculi differunt splendor et perspicuitas. Ratio autem inferior et superior dicunt eandem diversimode relatam'[1]—73: 21.

It is also by this active *vis* that the material intellect is able to come into contact with that superior *lumen* which we have mentioned above as the second condition for knowledge, and without which the intellect, always inclined to error and of itself unable to arrive at truth, cannot function fruitfully—*Quaest. Laur.* f. 39^{r}a; *Text* 74: 8. This superior *lumen*, or as Pecham usually terms it '*lux increata*', is, as Augustine says in

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[1] In *Text* p. 74: 2 Pecham follows Augustine in holding that the intellect as concerned with eternal things is the *ratio superior* and with temporal things is the *ratio inferior*.

many places,[1] really God co-operating with man in a very special manner. '⟨Quaedam⟩ operationes humanae, sicut motus et sensus, sunt a Deo secundum rationem potentiae efficientis tantum. . . . Operatio autem intellectualis est ab ipso secundum rationem non tantum potentiae efficientis, sed secundum rationem lucis refulgentis'—67: 14; *Quaest. Laur.* f. 38^{v}b.

The manner in which this Divine light co-operates has been described by Augustine in *De Trin.* xii, c. 14[2] as—'Cum pervenitur, quantum fieri potest, ad rationes incommutabiles, non in eis manet ipse perventor, sed veluti acies ipsa reverberata repellitur, et fit rei non transitoriae transitoria cognitio'—*Text* 70: 20; or again, 'Ratio iudicat de istis secundum rationes incorporales sempiternas, quae, nisi supra mentem essent, incommutabiles non essent'—*Quaest. Laur.* f. 38^{v}b; or lastly, 'Lux increata ipsa ostendit omnia, nec tamen se ipsam ostendit obiective'—*Text* 175: 28. Pecham does not improve much upon Augustine. Thus, he says, 'Lux divina est omnium forma exemplaris et quasi efficiens, imprimens omnibus suam similitudinem, sicut sigillum imprimit formam suam cerae. Non tamen est alicuius forma inhaerens sicut vestigium sigilli in cera'—71: 3. Again, he seems to make the action merely a perfecting of the material intellect's natural abstraction and assimilation of the *species intelligibilis*: 'Non est idem intellectus agens cum ratione superiore, sed est ipsa vis activa, quae perficit utramque rationem: et intellectus materialis dicit utriusque rationis possibilitatem'—74: 18, *Sent.* f. 16^{r}a. And further—'Aliae sunt rationes cognoscendi, quae non sunt obiecta, sed tantum media in alterum ducentia, sicut species rerum sensibilium; et innotescunt, nisi in quantum ducunt in alia; et sic se habet lux aeterna, quae non est in via obiectum mentium humanarum, sed lumen tantum ostendens veritatem intelligibilium; sicut lumen solare non attingit visus, nisi in quantum superfunditur rebus visibilibus. Quod autem lux divina aliquo modo lateat et alioquo modo pateat,[3] ostenditur per Augustinum.' More satisfactory is his assertion in 70: 24—'In cognitione veritatis alicuius propositionis necessarie duo sunt: aliquid sicut materiale, ut extrema et compositio eorum—et illud est ab operatione intellectus; aliquid est quasi formale, scilicet veritas propositionis—et illa carpitur a luce aeterna. . . . Illud igitur quod formale, id est veritas enuntiabilium, inde colligitur et forte etiam rationes aeternorum vel extremorum.' It is in such a way that Pecham defends himself from the objection that if our intellect sees in the Divine light we possess two species of the same thing.

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[1] A list of these is given in the 1883 Quaracchi edition of this question, p. 180.

[2] *Ibid.*, *P.L.* 42: 1010.

[3] William of Auvergne held that we have an immediate knowledge of the principles in the Divine light without a direct view of God. Cf. M. Baumgartner, *Die Erkenntnislehre des Wilhelm von Auvergne*, Münster 1893 (*Beiträge* series, Bd. 2, p. 84 f.).

God, as the Divine light, is what Pecham, like Grosseteste and Bacon, understands by the *intellectus agens*. With Bacon he maintains that the *intellectus agens* could not be a part of the human intellect, for though Aristotle has said that everything has a formal cause or agent as well as a *quasi materia*, he has also said that the agent and the matter never coincide in the same thing. Again, if the active intellect were a part of the human intellect, man would both know all and be ignorant of some things. Therefore, since it is not a part, it must be said to be 'abstractus, immixtus, neque passibilis, et est in sua substantia actio et scientia in actu. . . . Est ergo in anima, intellectus hic agens sicut motivum in moto'—*Text* 66: 16 f., 73: 13; *Quaest. Laur.* ff. 38^{v}b, 39^{r}a. From what has been said of the natural activity of the intellect it will be gathered that Pecham's view of the *intellectus agens* as a motor does not imply a pure passivity in the soul. Thus he writes, 'Dico quod anima aliquid habet in se activum, sicut virtutem formativam specierum, sicut etiam virtutem iudicativam scilicet rerum. Sed illud quod ponit intellectum in actu intelligendi, est intellectus divinus'—*Text* 68: 35, 66: 20.

The *intellectus agens* being God, may well be one for all men, yet 'non una in me et in te nisi secundum quod refulget in suo fonte'—68: 24. To the impossibility of it being one in the Averroistic sense Pecham devotes even more attention than Bacon—an attention warranted by the greater predominance of Averroism in his day.

The Averroistic position, which, he remarks, could be countenanced only by a madman or a man entirely ignorant of divine and human tradition (52: 28), is founded on two hypotheses: (*a*) Intellect cannot be particular because it lacks matter, and (*b*) Intellect is not contracted either in perfecting a body or during the process of cognition.

Pecham regards the first hypothesis as untenable because even if the intellect has not transmutable matter, it has spiritual matter, and this can be the foundation of distinction among spiritual substances. In fact, such a matter must be what Averroes himself postulates when he speaks of intelligible beings as having something like to matter and something like to form—49: 27. Again, the expression 'intellectus ⟨est⟩ penitus a materia absolutus' must not be accepted literally. Both Aristotle and Augustine have shown that it is of the very nature of the intellective soul to perfect a body (cf. p. 185), and so 'absolutus' can only mean that the intellect is not essentially dependent on matter for its complete actuality. This interpretation can be supported by the intermediate position of the rational soul between the angel, who is 'a materia absolutus in essendo et perficiendo', and those lower souls, which are 'omnino coniunctus in essendo et perficiendo sive agendo', for as such, the rational soul is not dependent 'in essendo, unitur tamen perficiendo'—50: 6. Lastly, the first hypothesis involved in the Averroistic position involves the false assumption that matter is the whole cause of individuation—51: 1.

To the second hypothesis Pecham objects that the soul is circumscribed when it perfects the body because it has a particular inclination to its own body. Besides, the same soul could not perfect different bodies at the same time, for Aristotle says that the number of movers is numbered according to the number of movables, and John Damascene also holds that even the angels can only be where they are operating, which is to say, they are circumscribed—51: 18. Secondly, the rational soul is circumscribed in knowing, because it does not receive 'multa simul a multis'; it understands 'cum continuo tempore' and not by grasping a plurality in one instant—51: 29.

In addition to these impossible hypotheses, Averroism has impossible consequences. It undermines the possibility of defining man by his specific rational element, and it also destroys the possibility of merit and recompense, for if the intellect in an individual is not peculiar to him, there can be no real personal choice—52: 16.

Were the foundations and consequences of Averroism not sufficient grounds for rejecting it, we have a further reason in the Catholic faith and in the opinions of the saints. According to faith each soul is created as an individual, and the saints declare that even if there be question about the origin of the soul, there can be no doubt that each man has a particular soul—49: 10. The only unfavourable instance that could be quoted from the saints occurs in Augustine's *De Quantitate Animae*[1] where we find—'Si multas ⟨animas⟩ tantum esse dixero, ego me ridebo': but here Augustine has in mind a moral unity, as is borne out by different passages including that in *Super Ioh. Homilia VIII*[2]—'Si anima tua et anima mea, cum idem sapimus nosque diligimus, sit anima una, quanto magis Deus Pater et Filius Deus in fonte dilectionis Deus unus est'—53: 22: 38: 28.

Up to the present we have been speaking only of the intellect's knowledge of corporeal things and of how God cooperates in that knowledge. In addition to this, the intellect has a knowledge of spiritual beings, and it is in respect of such a knowledge that Pecham thinks of the body as a hindrance and a prison—cf. *Quaest. Laur.* ff. 42^{r}a, 43^{v}b; *Sent.* f. 13^{v}b. As far as God is concerned, this knowledge is founded to a certain extent on a knowledge of coporeal beings, for by considering the order, origin, perfection, and changeability of creatures, which all, 'sub ratione causae', stand in essential relation to God, we may arrive at some knowledge of the Divine Being: or the foundation may be less direct, as when the unchanging certain knowledge of creatures presupposes something that is certain *per se*. 'Necesse est igitur quod illud, quod est ratio intelligendi omnia certitudinaliter, sit certum in fine certitudinis'—172: 12. Though the Divine nature far transcends this knowledge derived from the world of creatures, such knowledge is valuable as far as it goes. 'In creaturis non invenitur quod Deus est formaliter vel proprium esse divinum. Et tamen invenitur ex creatura ipsum esse divinum'—173: 31.[3]

There is, however, a second type of knowledge of spiritual beings, and this in no way depends on corporeal creatures. As far as God is concerned, it is knowledge by *species innatae* or species concreated with the soul, a knowledge that John

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[1] Cf. *ibid.*, § 69, *P.L.* 32: 1073.

[2] *Tract.* 18, *P.L.* 35: 1538.

[3] It is in virtue of this type of knowledge of spiritual beings, as well as of the knowledge of corporeal beings, that the soul is said to be created as a *tabula rasa*—*Text* 216: 30.

Damascene says is inserted naturally in all beings by God Himself. Hence referring to the Damascene i, c. 1 (*De Fide Orth.*, *P. Gr.* 94: 789 f.) Pecham asserts 'Deus a nobis tripliciter cognoscitur, scilicet per naturalem impressionem, per investigationem quae ex creaturis colligitur, et per revelationem'—*Sent.* f. 10ʳa. Knowledge of other spiritual beings may be acquired by similar innate species or either by *species impressae*, i. e. species added to the soul in time by God or by the angels, or by *species expressae*, i. e. species eternally and essentially in the soul, e. g. the soul's knowledge of itself and of spiritual beings [1]—85: 12 f.; 215: 7 f.; *Sent.* f. 10ʳa. The soul's knowledge of itself through a *species expressa* implies that Pecham, like Augustine, Bacon, and Bonventura, regarded this knowledge as something other than a knowledge of the contents of consciousness, that is, as a direct intuitive knowledge of its own peculiar nature.

All species, whether abstracted, connate, or infused, may be combined by the intellect to form a judgement (*cogitatio*). Such an activity utilizes the connate norms of truth and of goodness and the *regulae* of eternal light (197: 18), and because it involves will is essentially an operation of the rational soul. Consequently, it must be distinguished from sense *cogitatio*, which combines 'formas imaginatas cum intentionibus et aestimationibus'—78: 1. In the formation of judgements, as also in simple apprehension, the problem of truth is concerned. Generally speaking, truth is the conformity of a thing to its idea as that idea exists either in the knowing mind or in God. On the first conformity Pecham does not dwell, and his remarks on the second are summed up in the statement—'res in tantum vera est, in quantum imitatur rationem aeternalem, quam animus in iudicando de rebus attingit, si recte iudicat, nulla tamen creatura plene imitatur rationem suam'—219:5, cf. 218: 17. The fundamental problem of how the soul is to judge rightly is not elaborated by Pecham. Our attainment of truth and certitude is hampered not only by our imperfect knowledge of the eternal ideas but also by the mutability of things themselves. Though mathematical entities are less subject to mutation, even they cannot afford perfect knowledge on account of the difficulty of arriving at the essence of number and of magnitude. In the things of faith lies the greatest certitude—*Sent.* ff. 3ʳb, 4ʳa.

[1] Our knowledge of the angels is not developed by Pecham.

In the knowledge of the separated soul Pecham is naturally interested. The separated soul, being more immaterial and therefore more perfect, has a more complete knowledge. 'Quanto immaterialiores sunt formae, tanto sunt perfectiores. Anima autem unita corpori habet materiam intrinsecam partem sui et etiam extrinsecam, quam perficit. Anima autem separata habet tantum materiam alteram'—99: 11. Again, '⟨anima⟩ separata aptior est ad intelligendum quam coniuncta secundum statum miseriae, non tamen quam in corpore optime disposito, sicut erit in gloria'—50: 20, 96: 1. This more complete knowledge involves a direct apprehension of particulars (95: 31), the species preserved in the memory, and newly infused species. But even in the separated state the soul does not see things perfectly with all the infinite variety of the Divine *rationes*, for such a sight transcends the power of the creature. Indeed, Pecham is of the contrary opinion to Bacon, that the infused species of the separated soul are not equal to those of the angels, since only in the glorified state does man become like unto the angels—118: 15, 94: 6. His views on the knowledge of the glorified soul are not elaborated, though he speaks at great length of the glorified body. The body in this state being extremely subtle in virtue of its penetrative power, impalpability, transparency, and velocity (cf. 125: 9 f. and 140: 14 f.), does not retard knowledge any more than it did in man's original state of innocence (100: 31 f.), and though it includes *in actu* both the exterior and the interior senses, these senses do not contribute to the development and sanctification of the soul as they do in this life, but exist only *propter delectationem superabundantem*—163: 5 f.

Of the will as the second potency in the soul Pecham treats more fully than his predecessors but not as fully as might be expected from one anxious to exalt Augustinianism. The operation of willing is occasioned or partly caused by knowledge, for without knowledge there can be no desire—*Sent.* f. 107^{v}b; but it could not be entirely caused by knowledge because—'liberum arbitrium libere habet moveri vel non moveri etiam post apprehensionem rei'—*Quaest. Naz.* f. 40^{r}a. Again, 'voluntas ut appetens excitatur ab intellectu, sed ut libera non ab intellectu movetur, sed a se'—*ibid.*, f. 49^{r}b; cf. *Sent.* f. 121^{v}b; *Text* 180: 5, 207: 26. Freedom to deliberate and to choose is of the very essence of will, and to have a will is to be free. 'Voluntas *seu* liberum arbitrium . . . movetur a se'—*Text* 180: 5. Pecham's view of the indirect way in which the heavenly bodies can incline the will is simply that of his predecessors—cf. *Quaest. Naz.* f. 32^{v}b; *Quaest. Laur.* f. 45^{r}a. Lastly, he observes that predestination need not interfere with freedom—*Quaest. Naz.* f. 32^{v}b; but this casual remark is not easy to reconcile with his view in *Text* 160: 35 that moral goodness is not equal in all men because of predestination.

The primacy of will over intellect, a contention that was not put forward by his predecessors, is supported by Pecham on the following grounds: (1) the intellect can be said to be the most superior power only when, as including the will, it is opposed to the senses—*Text* 179: 26; (2) without an exertion of the will, the intellect would not operate—*Sent.* ff. 37^{v}b, 55^{r}a; *Text* 180: 12; (3) understanding is a movement of the soul that has more of the nature of a passive potency, while will is more of an active potency—*Sent.* f. 60^{r}a; *Text* 178:3; and (4) beautitude lies principally in the will because the good *proprie et per se* pertains to the will but only *sub ratione veri* to the intellect—178: 13; *Sent.* f. 8^{r}a; *Quaest. Naz.* f. 48^{v}b. Even Aristotle does not really intend that true beatitude lies in speculation, for he says (*Met.* xi, c. 7),[1] 'intelligere divinum est sibi voluptuosum et delectabile,' and Pecham adds, 'Secundum illum igitur speculationem so⟨nat⟩ quod nos vocamus contemplationem; quae non consistit in sola cognitione, sed magis in delectatione sapientiae'—179: 29.

Of memory as the third potency of the rational soul Pecham writes, 'Triplex est memoria, memoria sensibilis, in qua cum bestiis convenimus, et intellectualis duplex, una quae continet animae naturales impressiones veri et boni et regulas lucis aeternae, et haec organo non utitur, alio modo est memoria intellectiva, quae recipit species a phantasmatibus depuratas et intellectuales effectas. Et haec, licet organo non utatur per se, tamen per accidens necesse habet ad organum recurrere, ut dicit Avicenna. Sed prima et tertia tempus concernunt, secunda non'—197: 16.

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[1] xii, S. 2, c. 3, f. 151^{r}b.

ANGELOLOGY

Pecham's remarks on the angels are fragmentary. Following Bacon he assigns to them, as to all creatures, a composition of essence and existence, of matter and form, of act and potency, and of species and differentia—*Sent.* f. 33^{v}a. As regards the much debated second type of composition, he tells us that the matter involved is neither physical matter, which is subjected to contrariety and quantity, nor mathematical matter, which is subjected only to quantity, for both of these types would destroy the essential unity and simplicity of the angel: it is that intelligible matter which the saints and especially Boethius in *De Unitate et Uno*,[1] have assigned to the soul—*Quaest. Laur.* f. 41^{r}b. In virtue of this matter or potency the angel is saved from being a static entity, for while he does not vary in respect of his substantial principle, he can experience change in receiving new revelations or by rejoicing over the sinner doing penance—*Sent.* f. 32^{v}a.

The essential type of activity in the angel is cognition. As far as inferior things are concerned, the angelic cognition depends entirely on innate species applying to singulars as well as to universals, for if the angel knew by receiving species from inferior things, he would have an *intellectus possibilis* as man has—*Quaest. Laur.* f. 41^{v}b; *Quaest. Naz.* f. 16^{r}b; *Quaest. Merton.*, f. 263^{v}a. However, by two other casual remarks Pecham seems to modify the foregoing opinion.[2] 'Concedo quod angelus nihil recipit a rebus corporalibus, nisi tantum occasionem assimilandi se rebus particularibus quod colligitur ex Augustino libro *de Cura pro Mortuis*'[3]—*Quaest. Laur.* f. 41^{v}b; and 'Intellectus angelicus non est possibilis ut noster, habet tamen possibilitatem sui generis sicut in voluntate. Ita et in ratione acquirit autem non recipiendo sed se illi configurando ex occasione rerum'—*Quaest. Merton.*, f. 264^{r}a; cf. *Quaest. Naz.*, f. 51^{r}b.

In addition to this innate knowledge, which is the natural knowledge common to the good and the bad angels, though clearer in the good ones, some angels have a higher knowledge resulting from a co-operation of supernatural light with their natural knowledge, or a still higher knowledge that is purely supernatural and means the vision of things *in Verbo—Quaest. Naz.* f. 16^{v}b.

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[1] The true author of this is Gundissalinus. Cf. the edition by P. Correns, Münster 1892 (*Beiträge* series, Bd. I, p. 6).

[2] For Bonaventura's attempt to save the angels from ignorance of inferior creatures, cf. Gilson, *op. cit.*, pp. 245–6.

[3] Cf. *ibid.*, c. 15, *P.L.* 40: 605.

Although the angels are purely spiritual beings without bodies (*Quaest. Laur.* f. 41^{v}a), the operations of their will may be applied to body, and in virtue of this they are said to be circumscribed to place (*Text* 51: 25) or to be in place *per accidens* or *diffinitive non dimensive—Sent.* ff. 105^{r}b, 107^{v}a. Nevertheless, Pecham cannot refrain from saying that the angels, like God and glorified souls, are in the empyrean, the noblest body, situated above the mobile heavens—*Text* 155: 1, 156: 4.

NATURAL THEOLOGY

God, as a being of most perfect actuality, has an existence and action that are the same as His essence—*Sent.* ff. 13^{r}a, 32^{v}a. Of the many difficulties involved in such a pure actuality three are raised by Pecham. (1) Could the attributes that we assign to God correspond to different entities in Him? Pecham thinks not, because pure actuality means pure simplicity—*Sent.* f. 33^{v}a. 'Impossibile est attributa divina essentialiter differre, cum unum ab alio non habeat esse'—*Sent.* ff. 11^{r}a, 77^{v}a. Because the attributes are only logically distinct, our knowledge of God, though valuable as far as it goes, does not truly represent His proper nature.

(2) If God's essence is not differentiated in correspondence to His attributes, has it differentiations corresponding to the three Divine Persons? The question is introduced because it will give us a hint of one of the possible sources of Scotus's formal distinction. Naturally Pecham denies such a differentiation and regards the real plurality of Persons as arising *ex sola relatione—Sent.* f. 65^{v}b, 76^{r}b. These relations are different *proprietates essendi* applying to the ungenerated essence (*ibid.*, ff. 12^{r}a, 26^{r}b), and being such, they are not really distinct from it. However, when these relations are compared to one another, their *differentia a parte rei* (ff. 95^{r}b f., 35^{r}b) is brought out and the peculiar modes of being, which they confer upon the Divine Essence, come to the foreground. Under these circumstances, the distinction between the Person and the Essence appears to be

something more than logical, and hence, though when the relation is compared with the Essence *in essendo* there is no difference, when compared *in propria quidditate et ratione* there is a difference. This difference may be called a difference of reason, but it must be admitted that in this instance the phrase assumes a special meaning. 'Differre ratione potest intelligi dupliciter, vel ita quod differentia consistit vel discernitur sola intellectus apprehensione vel quia differentia differentibus nihil addit absolutum. Primo modo essentialia divina differunt in ratione; secundo modo personae divinae ratione differunt'—*Sent.* f. 12^{v}b. Consequently in Pecham's distinction between the Divine Persons and the Divine Essence we seem to have a clear anticipation of the formal distinction of Scotus as something between a logical and a real distinction, being logical when we think of the common Divine properties, and real in regard to the Personal characteristics (cf. p. 356).

(3) Pure actuality has to be reconciled with (*a*) God's knowledge of things other than Himself, and (*b*) His immediate creation and conservation of creatures (*Quaest. Naz.* f. 39^{r}b).

Pecham, following his predecessors, holds that though God has a knowledge of singulars as well as of universals, that knowledge does not come through a perfecting process set up by external singulars but through an apprehension of His own essence as the formal, efficient, and final cause of all beings. 'Respondeo sicut creatura rationalis vel intellectualis cognoscit singularia per species acquisitas vel impresses seu innatas essentialiter a se differentes, sic deus cognoscit et producit res exteriores per rationes ydeales quae sunt essentialiter idem quod ipse. Habet autem ydeas non tantum universalium ut quidam male dicunt sed etiam singularium. . . . Est cognitio causans et causata. Cognitio causata perficitur vel a cognoscibili vel a dante speciem quae est ratio cognoscendi. Cognitio autem causans, scilicet divina, non perficitur aliunde, quia cognoscit se et alia per propriam essentiam quae causa est omnium'—*Quaest. Laur.* f. 38^{v}a. God knows singulars because He produces them, and for the same reason He knows matter *per ydeam*—*Sent.* ff. 100^{r}a and b, 102^{v}b; *Quaest. Laur.* f. 38^{v}a.

Concerning the Divine actuality and the creation of the world, Pecham's chief comment runs—'Dicendum quod cum dicitur "deum posse creare", duo intelliguntur, unum est essentia dei quae ⟨est⟩ eius potentia, aliud est connotatum, scilicet transitus potentiae super rem exteriorem. Iste autem transitus non designatur nomine potentiae in actu sed tantum in aptitudine, et ideo quamvis ipse transitus cum est in actu, sit in creatura ut in subiecto, tamen antequam transeat nunquam est nisi ⟨in⟩ aptitudine sola, sicut effectus est in sua causa. Et hoc modo significatur cum dicitur "deus potest creare" nec ibi significatur secundum rem alia possibilitas quam cum dicitur creatura potest creari. . . .'—*Quaest Laur.* f. 38ʳa; cf. *Sent.* ff. 29ʳa, 32ʳb.

Pecham only incidentally touches on the question of an eternal creation. For him such a creation is impossible because *esse post non esse* and an actuality commencing with time is of the very essence of creation. Besides, eternal creation would involve an actual infinity of rational souls, unless such an infinity were avoided by regarding the soul as mortal or as being able to inhabit different bodies—*Quaest. Laur.* f. 39ʳa and b; *Quaest. Naz.* f. 62ʳb. In *Text* 58: 36 he follows Bacon in denying that Aristotle held that the world is eternal.

RICHARD OF MIDDLETON

RICHARD OF MIDDLETON

OF the birth, youth, and entrance into religion of Richard of Middleton we know nothing. Even for the country of his birth, traditionally regarded as England, our earliest evidence is that of Trithemius (d. 1516) which runs—*Ricardus de Media Villa, natione anglicus, ordinis Fratrum Minorum.*[1] This is supported by Leland and Bale, and in the seventeenth century by Pits, Wadding, Wood, and Cave, though the chances are that these compilers were dependent directly or indirectly on Trithemius.[2]

Now against tradition and this late evidence Fr. W. Lampen [3] has recently brought forward a statement found in the colophon of Assisi MS. no. 143 (fourteenth century) f. 125^{r}b; it reads thus—*Summa quaestionum* 330. *Expliciunt tituli quaestionum primi scripti super Sententias magistri Richardi de Media Villa, ordinis Minorum, provincie francie et custodie Lotharingie. Deo gratias. Amen.* This looks, then, as if Richard were not English; but it is not conclusive, for, as Fr. Lampen himself suggests, the statement may refer only to the fact that Richard had been teaching in France. Further, I am told by Fr. E. Longpré that the handwriting of this colophon is that of the compiler of the catalogue of the Assisi Library made in 1381. This being the case, I would suggest that even if 'provincie francie' refers to the country of Richard's birth, it might well be an error, for the same compiler has erroneously prefaced such an important manuscript as that of the *De Gradu Formarum* with *Quaestio fratris Guillelmi de Falgaro de gradibus formarum de ordine fratrum minorum* (f. 99^v of MS. Plut. 17 sin. cod. 7 of Bibl. Laur., Florence); whereas internal evidence of doctrine and of verbal similarities proves that the treatise is by Richard of Middleton. The compiler, then, is not entirely trustworthy,[4] and hence it must be said that there is no definite evidence against the English origin of Richard. In fact there seems to be an early corroboration of tradition in the ascription on the first page of Richard's *Quodlibeta* (Merton MS. no. 139 (fourteenth century) f. 162^r)—*Tria quodlibeta fratris Ricardi de Meneville,* from which Fr. F. Pelster[1] concludes that this was the original form of Richard's name, and that it is highly probable that he came of the family De Meneville or Meynill in Northumberland. The same form is also found in MS. Assisi 144, f. 143^r: *Explicit tertium Quodlibet fratris Ricardi de Menevile de ordine fratrum Minorum.*

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[1] *De Scriptoribus Ecclesiasticis*, Basle 1494, f. 112^r.

[2] Cf. E. Hocedez, *Richard de Middleton*, Louvain 1925, pp. 6–11, 14.

[3] 'De Patria Richardi de Mediavilla, O.F.M.' in *Arch. Fran. Hist.*, 1925, p. 298.

[4] Cf. A. G. Little, 'The Franciscan School at Oxford in the Thirteenth Century' in *Arch. Fran. Hist.*, 1926, p. 869.

After this lengthy discussion of Richard's nationality, which seemed necessary to justify our inclusion of him in this work, it will not seem strange if we favour the tradition that he studied at Oxford, though our earliest authority for this is Johannes Major (1469–1550),[2] who names Richard, together with Alexander Hales, Scotus, Occam, and Bradwardine, as a renowned philosopher and theologian of Oxford.

The dates for Richard's biography begin about 1280 when we find him teaching in Paris.[3] Certainly in 1283, when still a B.D., he was one of the judges of Olivi,[4] while in 1284–5 he became a master at Paris.[5] About 1296[6] Richard and William of Falgar were in Naples as tutors to St. Louis, the son of Charles II of Sicily. After this, there are no certain dates; his death has been assigned both to 1300 and 1309.[7]

THE RELATION OF RICHARD TO HIS CONTEMPORARIES

Richard, who has been regarded as the greatest schoolman between Bonaventura and Scotus, is certainly one of the most interesting of the philosophers included in this work. If one has had the good fortune to read his works after a recent perusal of the Oxford productions of his time, one cannot but be struck by the many striking resemblances. Thus his insistence on experience as the starting-point for speculation and his decided scientific bent are characteristic of the Oxford school; his love of St. Bernard and St. Anselm and his treatment of ethical problems strongly savour of Grosseteste; his adoption of Pecham's theological arguments for the plurality of forms points to a knowledge of the archbishop's works; and finally, his acquaintance with the writings of Thomas of York is suggested by his special fondness for Avicenna, by his frequent employment of Averroes, Algazel, and the author of the *Six Principles*, by his method of citing two or more opinions concerning a problem and then leaving the reader to choose for himself, by his strong personal tone,[1] and above all, by the many similarities of phrases and examples found in their discussions of the same problem.

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[1] 'Die Herkunft des Richard von Mediavilla, O.F.M.' in *Phil Jahrb.*, 1926, p. 172 f.

[2] *Historia Maioris Britanniae,* Paris 1521, f. viii.

[3] Cf. Hocedez, *op. cit.*, p. 72 f.

[4] *Ibid.*, pp. 72–3, 79–92.

[5] *Ibid.*, p. 72 f. This would make the date of his birth fall before 1249, since thirty-five was the minimum age for obtaining the Master's degree.

[6] Cf. M. R. Toynbee, *St. Louis of Toulouse,* Manchester 1929, p. 105.

[7] Hocedez, *op. cit.*, p. 119.

As far as the members of his Order in Paris are concerned, Richard must have known the views of Bonaventura, both through his writings and through his disciples, Matthew of Aquasparta, William of Ware, and possibly Roger of Marston. But he does not hesitate to depart from the *Doctor Seraphicus*; hence, we find him amending Bonaventura's interpretation of the important Augustinian doctrines of the *rationes seminales* [2] and of Divine Illumination, denying to man a direct knowledge of spiritual beings apart from phantasms, and appealing constantly to Aristotle [3] and the Arabians. This appeal to pagan writers, however, must not be regarded as a Thomistic tendency in Richard; it is done much more in the eclectic spirit of Thomas of York. Besides, the Thomistic devotion to Aristotle would be more likely to repel than to attract Richard, for he writes just after the 1277 condemnations by Tempier [4] and by Kilwardby and the ordinance of the 1282 Strassburg Chapter which required that the *Correctorium fratris Thomae* (1281) of William de la Mare should be read together with St. Thomas's *Summa*

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[1] Cf. Hocedez, *op. cit.*, p. 429.

[2] It will be remembered that Pecham in a letter to the Bishop of Lincoln in 1285 complained that the doctrine of Alexander and Bonaventura had been forgotten, and that the teaching of Augustine on the *rationes seminales*, on Divine illumination, and on the potencies of the soul had been rejected—cf. H. Denifle, *Chart. Univ. Paris*, Paris 1889, t. 1, p. 634.

[3] Cf. Hocedez, *op. cit.*, p. 65.

[4] Richard seems to have had Tempier's condemnation constantly in mind. Hence when it bears on any problem raised by Richard I have given in the foot-notes the most important propositions as edited by H. Denifle, *op. cit.*

Theologica—a work permitted only to the intellectual élite of the Order.[1]

In addition to his departure from Bonaventurian doctrines and his anti-Thomism, Richard is interesting for his attitude to other contemporary Parisian controversies, such as those that raged over Henry of Ghent's theories of essence and existence and of the possibility of a practical intellect in God, Olivi's interpretation of the plurality of forms, and the doctrine of the unity of form held by Gilles de Lessines and Gilles de Rome.

With this intellectual atmosphere, it is not surprising that Richard should be a man of whom Trithemius[2] could write, 'Vir in divinis scripturis eruditissimus, et tam in philosophia quam in iure canonico egregie doctus, ingenio clarus, sermone scholasticus, in quaestionibus et dubiis scripturarum solvendis subtilis et promptus'; or of whom Hocedez[3] can say, 'Amour de la tradition et des opinions les plus sûres, souci de préciser et d'analyser les concepts, loyauté dans l'exposition des différentes opinions et modération dans leur appréciation, absence de toute subtilité, bonne ordonnance et clarté de l'expression, comme netteté de pensée, toutes ces qualités devaient faire de Richard un excellent professeur: elles expliquent également que la postérité l'ait proclamé *Doctor Solidus*.'

THE WORKS OF RICHARD

Of the works whose authenticity have been verified by Fr. Hocedez[4] I have used:

1. *Commentum super IV Sententiarum*, Brixiae 1591, according to Hocedez[5] dating *c*. 1285–95.
2. *Quodlibeta Tria* found in the same edition as the Commentary and according to the same authority[6] dating from 1284–7.
3. *Quaestiones Disputatae*[7]—MS. Merton College, Oxford, no. 139, a fourteenth-century MS. of 221 folios measuring 8 in. × 11¾ in. f. 1 has an index of the questions, ff. 2ʳa–156ʳb contain the *Quaestiones* which bear the title (in a much later hand)—*primum quod-*

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[1] Cf. P. Mandonnet, 'Premiers travaux de polémique thomiste' in *Rev. des sciences phil. et théol.*, t. 7, 1913, p. 54, and Hocedez, *op. cit.*, p. 94.

[2] *Loc. cit.*

[3] *Op. cit.*, p. 108.

[4] *Ibid.*, p. 14 f.

[5] *Ibid.*, p. 49 f.

[6] *Ibid.*, p. 33 f.

[7] *Quaestio* 13 has been edited after the Assisi and Todi *MSS.* in *De Humanae Cognitionis Ratione*, Quaracchi 1883, p. 221.

libet Ricardi de Media villa, and lack a colophon, ff. 156^{v}a–60^{r}b contain a subject index, ff. 160^{v}–1^{v}b are blank, and then come the three *Quodlibeta* which have been edited in the Brixiae edition. According to Hocedez [1] the *Quaestiones* appeared towards the end of 1284.

4. *De Gradu Formarum*—MS. Paris. fonds latin no. 15962 (beginning fourteenth century) ff. 169–80.[2]

THE THEORY OF BECOMING

Like his predecessors, Richard regards matter as that which is the subject of becoming in any being, and form as the actuality which determines that subject. Both, then, are factors that must be presupposed in order to explain change. Matter, again, is subdivided into a passive principle and an adaptation for form, the latter subdivision being really and not merely logically distinct from the former. Hence departing from the view of his predecessors that the factors involved in becoming are two *secundum rem* and three *secundum rationem*, Richard writes: 'Potentia materiae dupliciter potest accipi; uno modo pro eo quo materia potest recipere formam, et sic realiter idem est quod ipsa materia, sola ratione differens ab ea; materia enim per seipsam potest recipere formam vel dispositionem ad formam. Alio modo pro eo quo de ipsa educi potest forma educibilis de potentia materiae, et sic non est realiter idem quod ipsa materia, sed est quoddam principium purum possibile transmutabile in formam educibilem de potentia materiae per actionem naturalis agentis'—ii, d. 12, a. 1, q. 10, p. 153; *Quaest.* 17, f. 49^{r}b. Again, 'Res pure possibilis transmutabilis in formam concreata est materiae secundum quod accipitur pro natura receptiva formae quae remanet altera pars compositi'—ii, d. 12, a. 1, q. 4, p. 147. Lastly, 'Non potest esse nisi per actualitatem alienam concreatam fundamento naturalis transmutationis, transmutabile in ipsam formam educibilem de potentia materiae per actionem naturalis agentis nec est idem respectu formae substantialis et accidentalis'—*ibid.*, q. 10, ad 4^{m}, p. 153; iv, d. 12, a. 2, q. 2, p. 153.

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[1] *Op. cit.*, p. 27 f.

[2] The rotograph of this was kindly lent to me by Fr. E. Longpré. The manuscript is described in M. Hauréau, *Notices et extraits de quelques manuscrits de la Bibliothèque nationale*, Paris 1892, t. 5, p. 65.

One would naturally suppose that this concreated principle in matter is Richard's interpretation of the *rationes seminales* theory, but when we come to his discussions of generation and of the *exitus* of form (cf. pp. 219, 222 f.), we shall see that he regards the term 'rationes seminales' as improperly applied to this purely possible principle and limits it to the active powers in the semen of living beings. Of the causality of the agent in actualizing into a likeness of itself this pre-adaptation in matter or in destroying the existent form Richard, like Pecham, offers no theory.

TYPES OF BECOMING

Having sketched Richard's view of the factors involved in becoming, we turn to his consideration of the chief types.

Naturally, he maintains that the universe came into existence through creation or the Divine power of making something out of nothing. God neither worked on pre-existing material, an objectionable view that would involve the eternity of the universe, nor drew creatures from His own substance, a theory that would imply a *mutatio* in God—*Quaest.* 4, ff. 8^ra, 10^ra.

The result of creation, as far as corporeal things are concerned, was not matter in an absolutely unformed state, as some have supposed. If Augustine in *Conf.* Bk. 12[1] seems to hold such a view, he merely means that matter precedes form 'origine, sicut sonus cantum' and not in any temporal sense—ii, d. 12, a. 1, q. 5, p. 147. On the other hand, primordial matter was created neither under only one complete form[2] nor under the confused forms of all bodies such as now exist.[3] The most probable and most common view is that in the first instant of time God created the celestial bodies, the elements, and the hypostases of the animal species as so many positive potencies[4] in primordial matter—a view that best agrees with *Genesis* and that is supported by Hugo of St. Victor who says (I *Lib. de Sac.* 1,

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[1] c. 3 and 6, *P.L.* 32: 327.

[2] Grosseteste (cf. p. 19) and Bonaventura (ii, d. 12, 1, 3, v. 2, p. 300) thought that matter first existed under the form of corporeity.

[3] A fairly common view not mentioned by Richard was that of Robertus Pullus and of Peter the Lombard which asserted that primordial matter was a chaotic mixture of elements.

[4] As we shall see later, these positive potencies are regarded by Richard as the lowest determination that is compatible with existence.

p. 1, c. 4)[1] that everything was there 'in forma dispositionis', and by Augustine in III *De Trin.* c. 8 and 9[2] and *Super Gen.* i[3]—*Sent.* ii, d. 12, a. 1, q. 6, p. 148; *Quaest.* 41, f. 141^{r}b. In putting forward this view Richard intends to adopt the suggestion of Augustine that the six days of creation ought not to be taken literally,[4] and hence he seems to proclaim an evolution in which the complete differentiation of bodies takes place progressively.[5]

The relation between creation and time is also raised in the question *Utrum materia fuerit creata ante omnem diem* to which Richard replies, 'materia creata fuit ante diem secundum quod dies dicit tempus in quo lux corporalis[6] irradiat super terram et hoc videtur consonare scripturae'—ii, d. 12, a. 1, q. 7, p. 149. So, too, the angels were created before time, time being the measurement of celestial movements and, therefore, not existing before the creation of the firmament on the second day —iii, d. 11, a. 1, q. 1, ad 1^m, p. 106. But of the production of spiritual beings I shall have occasion to speak in the sections on psychology and angelology.

The second type of becoming is animate generation. Here the agent or male parent has a special power of initiating change because he possesses the form, whose likeness the offspring is to receive. 'Assimilatio generantis ad genitum non est propter naturam materiae, sed est per virtutem informativam traductam cum semine, eo quod retinet similitudinem paternae virtutis a qua derivatur et quantum in se est magis movet ad assimilationem parentis propinqui, sed aliquando non potest propter indispositionem materiae vel alicuius alterius causae impedientis effectum'—ii, d. 30, a. 5, q. 2, ad 7^m, p. 385.

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[1] *P.L.* 176: 189.

[2] *P.L.* 42: 875 f.

[3] *P.L.* 34: 256, and 57.

[4] *De Gen. ad Litt.*, *P.L.* 34: 314.

[5] The 1277 condemnation of Tempier includes among the errors regarding the results of creation the following: No. 35: Quod sine agente proprio, ut patre et homine, non potest fieri homo a Deo. No. 38: Quod Deus non potuit fecisse primam materiam, nisi mediante corpore coelesti. No. 46: Quod, sicut ex materia non potest aliquid fieri sine agente, ita nec ex agente potest aliquid fieri sine materia; et quod Deus non est causa efficiens, nisi respectu eius quod habet esse in potentia materiae. No. 107: Quod elementa sunt aeterna, sunt tamen facta de novo in dispositione quam modo habent (cf. p. 275, notes 1 and 2). No. 192: Quod materialis forma non potest creari.

[6] Richard does not have a *lux spiritualis* such as Grosseteste and Bonaventura posited as preceding corporeal light and conferring corporeity on primordial matter. He must have known their theory for in ii, d. 13, a. 1, q. 3, ad 1^m, p. 158 he mentions the opinion that light is a substance intermediate between corporeal and spiritual substance, distinct from the first because it is not extensible *per se* and from the second because extensible *per accidens*; again, in *ibid.*, ad 3^m, p. 158 he denies that *lux* is the noblest of corporeal forms; lastly, in *ibid.*, a. 2, q. 1, p. 160 he rejects the view 'of the many and the great' that *lumen* is produced by *lux* multiplying itself and maintains that it is educed from the potency of the medium. For Richard, light, on account of being visible, could not be a substantial form but only an accident produced by the sun acting on the medium by means of its *virtus lucis*—ii, d. 1, a. 4, q. 4, ad. 1, p. 23.

In addition to this specific likeness, which is a power derived from the soul of the father and transmitted with the spirits [1] (*Quaest.* 17, f. 51^ra), the semen, the vehicle of the transmission, contributes to the similarity between the generator and that which is generated. This is possible because, although the semen, as that part of the nutriment which is intended for the conservation of the species and not of the individual, is superfluous nutriment, it comes from the substance of the father not *in actu* but *in potentia propinqua*, and so in the case of man is convertible into a human rather than into any other kind of body—ii, d. 30, a. 5, q. 2, ad 1^m and 4^m, p. 384.

In treating of this subject Richard denies that the semen has anything of the substance of our first parents—*ibid.*, p. 383. If this seems difficult to reconcile with his view of original sin (the loss of man's original sanctifying grace) [2] as transmitted through an affected semen that develops into the body of the generated being (ii, d. 31, a. 2, q. 2, p. 392), we have his explanation that the individual was not in Adam 'secundum corpulentam substantiam propter hoc, quod aliqua pars corporis eius actu fuisset in Adam, sed quia in Adam fuit corporale semen continens virtualiter, non actu, illam carnem de qua iste miraculose formatus esset'—*ibid.*; or again, '⟨In primis parentibus⟩ erant omnia individua speciei humanae in virtute'—ii, d. 30, a. 1, q. 1, p. 372.

Nevertheless, whatever its origin, the semen has in itself an active factor by which it is able to dispose the matter of the embryo for the reception of the specific form of the generator. This activity found in the semen of all living creatures is, as is clear from Augustine, lib. 3, 5, and 9 *Super Gen.*,[1] the proper meaning of the term 'ratio seminalis'. 'Ratio seminalis proprie dicta est quaedam vis activa causata in semine a generante vel a causante alia a forma substantiali ipsius seminis, quae iuvat ad conservandum in materia formam illam ad quam determinavit materiam et transmutavit . . . ratio seminalis proprie dicta non est aliquid transmutabile in quamlibet formam educibilem per naturam de potentia materiae'—ii, d. 18, a. 1, q. 2, pp. 234–5; *ibid.*, q. 3, p. 236; ii, d. 13, a. 3, q. 3, p. 179.

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[1] We are not told whether these spirits contribute anything to the likeness between parent and offspring.

[2] In the state in which man was created there were a perfect obedience of the inferior powers to the superior ones and a right *habitudo* of the superior powers towards God—ii, d. 30, a. 1, q. 1, p. 372.

Once the active power of the semen has actualized the specific form in the embryonic matter, the individual form appears. Where man is concerned, that form comes from God, man generating man only in the sense of educing 'aliquam formam incompletam de potentia materiae disponentem ad intellectivae susceptionem'—*Quaest.* 13 (Quar.[2] p. 241). Where the lower organisms are concerned, Richard offers no interpretation of the source of the individual determination that colours the specific form.

Passing over the theory of animate generation by putrefaction, Richard's views of which add nothing to those of Bacon, we observe that in addition to the animate generation, which involves the production of a new and separate individual, our philosopher, like Aristotle, has a sort of spontaneous animate generation occurring within the individual, and hence, sometimes referred to as 'generatio secundum quid'—ii, d. 1, a. 1, q. 1, p. 5. This is instanced by the example of a sick man who is cured by nature without the help of a doctor, or even with such help, for in both cases there is a natural self-actualization of an intrinsic potentiality, though in the latter, the self-actualization is prompted by the medical skill of the doctor—ii, d. 10, a. 2, q. 1, p. 129.

Coming now to inanimate generation, we shall see that Richard admits two kinds, one that involves the conversion of elements either into one another or into a mixture, and a second that occurs in artistic production and is properly termed 'generatio secundum quid'. The former will be dealt with under the section on cosmology. As regards the latter, Richard's chief remarks are: (1) There must be in the mind of the artist some definite pre-existence of the form whose likeness is to be generated, a pre-existence that serves as an instrument of action—cf. i, d. 6, a. 1, q. 4, p. 73; *Quaest.* 13 (Quar. p. 229); (2) There must be something in the material that the artist perceives to be adaptable for the external realization of the form existing in his mind—cf. *Quaest.* 18, ad 11^{m}, f. 51^{v}b; *Sent.* ii, d. 10, a. 2, q. 1, p. 129; and (3) The material is in reality an already existent composite whose substantial form remains the same throughout the further differentiations of its accidents—ii, d. 7, a. 4, q. 1, p. 100; ii, d. 1, a. 1, q. 1, p. 5.

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[1] *P.L.* 34: 289, 337, 406.

[2] This refers to the edition in the *De Humanae Cognitionis Ratione*—cf. p. 214, n. 7 *supra*.

MATTER IN ITS STATIC ASPECT[1]

With the men whom we have already discussed Richard agrees that matter, which is known by us only 'per privationem vel comparationem ad formam et argumentationem' (ii, d. 12, a. 1, q. 1, p. 143), must have its own essence apart from that of form. He argues that if it remains as the common subject in change, being neither generable nor corruptible, it must have its own essence. If it were nothing, it could not be such a subject of transmutation. Again, as Avicenna in 2 *Met.*[2] points out, if form alone were the cause of the *esse* of matter, the matter of each form would be destroyed with the destruction of that form, and with the succeeding form a new matter would come into being. Lastly, both Aristotle in 7 *Met.*[3] and Avicenna in 5 *Met.* c. 5[4] regard matter as contributing something to the composite; therefore, it must have its own essence—*ibid.* qq. 1–3, p. 143 f.; *Quaest.* 17, f. 50^{v}b, and 41, f. 140^{r}b f.

Consequently, Richard says of matter, 'Non est res pure possibilis simpliciter, quamvis sit pure possibilis respectu formarum quae recipiuntur in ea'—ii, d. 12, a. 1, q. 1, p. 143. It possesses, as the Commentator, *Super Met.* viii[5], suggests, an *esse* mediating between an *esse actu et non esse*, or 'aliquem actualitatis gradum, quamvis infimum et indeterminatissimum'—*Quodl.* ii, q. 5, p. 42. 'Dico quod ipsa est essentia non pure possibilis, tenet tamen in entibus infimum actualitatis gradum, carens quantum est ex se actualitate, simili actualitatibus rerum quae recipiuntur in ea. Sed quia materia non potest esse in actu per naturam sine forma, et actualitas compositi plus est per formam quam per materiam, ideo dicunt philosophi et sancti quod existentia rei est per formam'—ii, d. 12, a. 1, q. 1, p. 143.

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[1] In dealing with Richard's theories of matter and form in their static aspects I intend to confine myself to the controversial points.

[2] ii, c. 4, f. 77^{v}a.

[3] Cf. vii, S. 2, c. 7, f. 83^{r}b, and *ibid.*, c. 12, f. 86^{v}a.

[4] *Ibid.*, f. 89^{v}a.

[5] viii, S. 1, c. 2, f. 99^{r}b.

Yet if matter does not exist in nature apart from form, Richard agrees with Pecham that it could so exist by the Divine power.[1] Such a possibility is a corollary following from its proper *esse* and may be supported by the fact that an accident, whose natural *esse* is an *esse in subiecto*, is able, by the Divine power, to exist *per se* in the Sacrament of the Altar—*ibid.*, q. 4, p. 146.

Because matter has its own entity, it must not be concluded that the matter of all terrestrial beings is one; such matter is numbered according to the number of forms. 'Dico quod multitudo istius principii possibilis debet attendi per comparationem ad actualitatem formarum in quae est transmutabile. Unde dico quod multitudo eius tanta est in potentia quanta est multitudo formarum corruptibilium numerando secundum speciem, non secundum individua'—*Quaest.* 17, f. 50^{v}b. Matter is only one when considered as the subject of a succession of forms—ii, d. 12, a. 1, q. 9, p. 151 f.

Further, the essence of matter is not of one type for all creatures. Celestial matter differs from terrestrial matter because, as Aristotle in *Met.* 12 [2] pointed out, it is not the subject of generation. It cannot receive a new form, both on account of the perfect satisfaction of its appetite by its own noble celestial form and the complete termination of the potency of terrestrial forms by their own matter: besides, some proportion must exist between matter and the forms that it can receive—ii, d. 12, a. 1, q. 8, p. 150. This satisfaction of the appetite of celestial matter also means that it is not homogeneous in the various celestial bodies and that these bodies cannot be transmuted into one another. Their intransmutability likewise follows from their specific differences, these differences being revealed by their different effects, which imply different powers in their form—*ibid.*

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[1] This was denied by St. Thomas, cf. *S. Theol.* i, q. 66, a. 1, ad 3^{m}.

[2] xii, S. 1, c. 2, f. 139^{v}b.

In addition to this celestial matter with its greater degree of actuality as compared with terrestrial matter Richard agrees with his predecessors in positing a spiritual matter which is the indispensable prerequisite for the change and development [1] found in human souls and in angels—cf. pp. 247, 262. Such matter differs from terrestrial matter because it is not the subject of generation and from celestial matter because it is not the subject of extension [2]—ii, d. 3, a. 2, q. 1, p. 53 f.

FORM IN ITS STATIC ASPECT

Under this heading the first controversial problem concerns the manner in which forms come into existence. Richard admits that if they are to be really educed from the potency of matter and not created, there must be in matter some pre-adaptation to forms. It will not suffice to say that matter is in potency to forms, for the intellective soul is in potency to grace and yet has nothing in itself from which grace can be educed—*Quaest.* 17, f. 49^{r}b. The pre-adaptation to form in matter is one that is really distinct from the essence of matter; but it does not mean an incomplete existence of the form to be received, especially if that existence is understood as 'aliquod esse actuale tamen imperfectum et incompletum'. Such a view, commendable inasmuch as it seeks to escape the theory of Avicenna that substantial forms are impressed on matter by the agent, whether an angel or the Creator, cannot be accepted literally because (*a*) substantial generation would be reduced to alteration, (*b*) the composite would not be truly generated if the form is only drawn out of matter, (*c*) if definition indicates the quiddity of a thing, and the whole essence of fire is in air before the generation of fire, the same thing would satisfy the definition of fire and of air, and (*d*) if the whole essence of fire is in the potency of matter, its complete existence must be there also, for essence and existence are not really distinct—*Quaest.* 17, f. 49^{v}a f.

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[1] St. Thomas's denial of matter in spiritual beings based on the intellectual character of their activity shows that he had not understood the theory of his opponents (cf. p. 92, n. 3).

[2] I cannot agree with Hocedez's remark (*op. cit.*, p. 190)—'Mais contrairement à saint Bonaventure, Richard maintient que la matière n'est pas homogène dans les corps matériels et dans les êtres spirituels.' Bonaventura's homogeneous matter is surely 'matter' used as Richard says 'largissime pro omni potentiali natura perfectibili a substantiali forma'—ii, d. 3, a. 2, q. 1, p. 53. Cf. E. Gilson, *La Philosophie de S. Bonaventure*, p. 239.

Nevertheless, an incomplete existence of form in matter can be accepted if that existence means an *esse purum possibile.* '⟨Si⟩ per essentiam formae intendat nominare aliquod principium possibile in materia transmutabile, in ipsam formam et per esse incompletum intelligat esse purum potentiale quod est quoddam incompletum esse, sic opinio ⟨potentia materiae de qua educitur corruptibilis forma est tota essentia formae sub esse incompleto⟩ habet veritatem et puto quod sic fuit intellecta a primis ponentibus eam. . . . Est ergo potentia materiae de qua educitur corruptibilis forma per naturam quoddam principium possibile in materia, quod non est idem re cum ipsa materia transmutabile in ipsam formam per actionem agentis naturalis, ita quod forma generanda dicitur esse in materia in esse pure possibili, ratione illius principii possibilis quod est transmutabile in ipsam'—*Quaest.* 17, f. 49^{v}b.

Also in the later Commentary we read, 'Videtur mihi dicendum quod in materia per quam intelligo fundamentum naturae est aliquid purum possibile quod per naturam est transmutabile in formam generabilem et corruptibilem, ratione cuius essentia talis formae tota est in materia sub esse incompleto, vocando esse incompletum non esse actuale imperfectum sed esse purum possibile . . . praedictum principium purum possibile est ipsa possibilitas positiva quae est de ratione materiae tanquam pars eius intimior. . . . Per praedictum principium purum possibile intelligamus passivam potentiam materiae, non illam qua materia potest ipsam recipere formam quia illa sola ratione differt a materia . . . , sed per quam materia ista se habet ad formam quod de se ipsa est educibilis per naturam'—ii, d. 15, a. 2, q. 1, p. 199.

This last passage shows that Richard follows Thomas of York in adopting the Aristotelian theory that forms come partly *ab intra* and partly *ab extra*, but whereas Thomas, like Augustine, makes the *ab intra* pre-existing factor to be something active, Richard, like Albert the Great and St. Thomas, reduces it to a purely passive principle, at least when inorganic things are concerned—a somewhat difficult doctrine as he holds that this principle is concreated with matter (cf. p. 215).

Consequently, it is not surprising that in *Quodl.* ii, q. 12, p. 47

he tells us that his theory was misinterpreted by his contemporaries,[1] or that he feels the necessity of explaining how such a possible principle can be really in matter. He declares that it is not there 'per actualitatem propriam sed per actualitatem alienam, hoc est per actualitatem materiae quae est actualitas indeterminatissima gradum infimum in actualibus tenens vel per actualitatem formae per quam materia est in actu'—*Quaest.* 17, f. 50^{v}b; *Quodl.* ii, q. 5, p. 40. But how 'proprium' or 'alienum' can be applied to a merely possible principle is difficult to comprehend, especially in face of Richard's own statement—'nullus omnino potest iudicare certitudinaliter differentiam inter aliqua duo, nisi cognoscat aliquo modo, quid est utrumque extremorum'—*Quaest.* 13 (Quaracchi ed., p. 230). Again, if the forms pre-exist in matter only as possibilities, it is not easy to see why one of these possibilities rather than another should respond to an acting agent, or how generation can have anything of the connotation of an evolution from the imperfect to the perfect that Richard assigns to it—*Quaest.* 17, f. 49^{r}b.

Before leaving this problem it may be well to recall that Richard, contrary to his Franciscan predecessors, does not wish to identify the purely possible potencies in matter with the *rationes seminales*. Thus he writes, 'Si ⟨ratio seminalis⟩ accipiatur *communiter* sic potest dici . . . de principio purae possibili transmutabili in formam educibilem per naturam de potentia materiae, et sic in materia unius elementi est ratio seminalis ad formam alterius elementi, et in elementis ad ea quae naturaliter generantur ex elementis . . . ⟨sed⟩ ratio seminalis *proprie* dicta non est aliquid transmutabile in quamlibet formam educibilem per naturam de potentia materiae'—ii, d. 17, a. 1, q. 2, p. 235; ii, d. 13, a. 3, q. 3, p. 178.

As regards the actualization of these potencies in matter, it must be said that the process is gradual, for in animate generation, as Averroes in *Phys.* i[1] has asserted, the form of the sperm recedes progressively until the human form is perfected—*Quaest.* 41, f. 141^{r}a f.; *Sent.* ii, d. 24, a. 2, q. 2, p. 176. Similarly, in inanimate generation, if fire is generated from earth by a process of increased rarity, the form of earth is corrupted gradually and the form of fire gradually educed. This, of course, means that a form may be received *magis et minus*,[2] the possibility of which is obvious from a consideration of heated water. We know that accidents cannot exist in matter without the mediation of a substantial form and also that certain substantial forms are repugnant to certain accidents, e.g. the form of water to heat. Hence in the case of heated water, we have to suppose that the heat must be there through some form other than that of water. But since two complete forms cannot exist in matter simultaneously, the form of heat in this instance must be there incompletely or *magis et minus*—*Quaest.* 41, f. 141^{v}a f.; *Sent.* ii, d. 14, a. 2, q. 2, p. 176 f. Both accidental and substantial change, then, show that there are degrees of participation in the form, and that the view that a form either is or is not has no foundation in nature. A *magis et minus* existence of form is supported also by the existence of elements in mixtures and by the views of Augustine and Hugh of St. Victor on the existence of things in primordial matter—*Quaest. ibid.*, f. 141^{r}a; *Sent. ibid.*, and (one might add) by the need for a plurality of forms in a being.

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[1] Olivi (1248–98) enumerates four contemporary views of how things are present in matter (*a*) according to their essence, (*b*) according to a logical possibility, (*c*) according to a *ratio seminalis*, and (*d*) according to an active potency that has less actuality than a *ratio seminalis*—cf. *Sent.* ii, q. 31, p. 508 f., ed. B. Jansen, Quaracchi 1922. His own cryptic view given in *ibid.*, obj. 15–19, ad. 18^{m} runs: 'in rebus corporeis rationes seminales sunt incorporaliter, quia ipsae res, quarum sunt rationes, non sunt in eis distinctae nec extensae sed potius intelligibiliter sicut scilicet effectus in causis.'

We have now to ask whether any successively educed form can have a likeness to other successively educed forms. It will be clear from what has been said about the transmission of the specific form in animate generation that there can be such a likeness and that this likeness is based on the fact that the generator in some way shares its specific form with that which is generated. That common form which we ascribe to two or more individuals has, then, a certain real existence in the individuals, and this existence is a potential universal. Hence, distinguishing like Thomas of York the common form from the actual universal as that which is predicable of the many, Richard maintains, 'Quidquid a Deo creatum est singulare est. Universale enim est per operationem intellectus. Non creatur universale in singulari sub ratione qua est universale nisi forte in potentia'—

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[1] i, S. 3, c. 3, f. 18^{r}b.

[2] This was denied by St. Thomas, cf. *De Potentia* iii, 9, ad 9.

i, d. 36, a. 1, q. 1, p. 309. Again, 'Natura non facit aliquid quod realiter sit in pluribus differentibus numero, sed quia facit aliquid quod per operationem intellectus sic intelligitur, ut rei sic intellectae conveniat praedicari de pluribus differentibus numero'—i, d. 19, a, 3, q. 2, p. 189. Further, 'Dicendum quod quamvis intentiones logicales habeant aliquam correspondentiam in rebus, non tamen oportet quod ita inveniatur in re sicut invenitur in intentionibus logicalibus, quod patet quia quaelibet res secundum suum esse reale una numero est. In intentionibus autem logicalibus invenitur unitas quae non est unitas secundum genus vel ad speciem, pro tanto ergo dicuntur habere correspondentiam in rebus quia res intellectae sub illis intentionibus salvantur in rebus extra quamvis non sub illo modo'—ii, d. 18, a. 1, q. 2, ad 3, p. 235.

It is of the actual universal as that which is predicable of many that Richard writes, 'Cum ⟨universale⟩ sit res aliqua et existens in intellectu vero, realem existentiam habet et realiorem quam si existeret in aliquo subiecto corporali, si possibile esset speciem intelligibilem in subiecto corporali existere. Et etiam quod est universale, quamvis realem existentiam non habet sub ratione qua universale, tamen habet esse repraesentatum quod esse sufficit ad movendum intellectum, mediante praedicta specie'—ii, d. 3, a. 3, q. 1, p. 56. In the same sense, he tells us that Porphyry regards the universal as the result of the operation of the intellect and that Aristotle (*Met.* 7) [1] denies its actual existence in the singular—*ibid.* It is again of this actual universal that Richard remarks, 'Dico quod ipsum universale . . . duo complectitur; scilicet id quod est universale, ut ipsam hominis vel angeli essentiam, ut intellectam praeter unitatem et multitudinem numeralem; et ipsam universalitatem quae est praedicabilis de pluribus. Sed neutro modo est in reali existentia angelus universalis nec quaecumque res alia, quia ipsa universalitas est res constituta a ratione. Et dicitur intentio secunda quia non accidit quidditati rei nisi ut intellecta est praeter unitatem et multitudinem numeralem secundum quem modum non potest esse actu in re extra, qua propter ut sic intellecta dicitur intentio secunda'—*ibid.*

If the actual universal did exist in singulars, two inconveniences would follow: (1) the universal would be incommunicable, and (2) the individual would be composed of a number of *supposita* and thus would possess a characteristic peculiar to the Divine Nature. The potential universal avoids these inconveniences, and also, because potency is not nothing, saves the common nature in individuals from being identical with their individual nature. Were they identified, the common nature would contribute nothing to our knowledge of individuals or to their operation—*ibid.*, pp. 55–6. Because of this potential existence Richard can proclaim, 'Universale non est aliqua res tota realiter existens in quolibet individuo, sed realiter multiplicatur in individuis'—ii, d. 12, a. 1, q. 2, ad 4, p. 152.

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[1] vii, S. 2, c. 12, f. 87^{v}a and *ibid.*, c. 15, f. 93^{r}a f.

In addition to the specific form which is multiplied as the potential universal in individuals, Richard has suggested in his treatment of animate generation that every being has an individual form; but when discussing the problem of individuation (this is done chiefly in regard to the angels) he no longer countenances this suggestion. In fact, he adopts the objection of Averroes against a like view in Avicenna—an objection which he quotes from *super* 4 *Met.*[1] as: 'Si res esset una per aliquam rem additam suae naturae . . . tunc nihil esset unum per se et per suam substantiam, sed per rem additam suae substantiae; et illa res quae est una, si dicitur quod est una per intentionem additam suae essentiae, quaeretur etiam de illa re per quam sit una. Si igitur sit una per intentionem additam illi, iterum quaeretur, et sic procedit in infinitum'—ii, d. 3, a. 4, q. 1, p. 58; *Quaest.* 8, f. 18^{v}a.

On the other hand, he agrees with Tempier[2] in condemning the theory that matter cannot be the cause of singularity. If 'the philosopher' maintains that a generator generates another on account of matter, he means either that the necessary separation of a thing from its generator can be accomplished only in matter or that the power of the generator to educe a form from the potency of something other than itself requires matter—ii, d. 24, a. 3, q. 4, ad 5, p. 312. Hence Richard, like Pecham, declares that matter may be a *sine qua non* of individuation, but not its cause.

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[1] iv, S. 1, c. 2, f. 32^{r}b.

[2] Cf. p. 247, n. 2. A further error is No. 191—Quod formae non recipiunt divisionem nisi per materiam. Error, nisi intelligatur de formis eductis de potentia materiae.

Thirdly, the theory of Avicenna in 3 *Met.* c. 3[1] and of Porphyry, which asserts that accidents individuate, is untenable because accidents have being and singularity from their substance and not vice versa—*Quaest.* 8, f. 18^{v}a.

For Richard individuation is the negation of divisibility, a property acquired when the composite as a union of matter and form comes into existence. He does not actually say that existence is the cause of individuation, but no other doctrine could be deduced from his treatment of the problem. Thus he writes, 'Unitas enim humanae speciei est ipsa species humana sub ratione qua indivisa in plures species; unitas vero numeralis quae convenit Petro vel Ioanni quae proprie dicitur unitas individualis ponit super essentiam rationem individuationis suae, quae individuatio super essentiam numero unam ponit aliquid ab ea differens secundum rem vel rationem quia ponit actualem existentiam. Eo enim ipso quo res actu existit una numero est. Unde Avicenna . . . dicit quod esse est de essentia unitas. . . . Unde si actualis existentia nihil addit reale absolutum super essentiam substantiae creatae, ut multi dicunt, tunc illud positivum quod addit praedicta unitas super essentiam substantiae creatae non differt ab ea secundum rem sed secundum rationem vel intentionem. Quia tamen ens in actuali existentia dicit compositionem ex essentia et actuali existentia, ideo unum super tale ens nihil addit positivum sed tantum negationem divisionis'—i, d. 24, a. 1, q. 2, p. 218. Similarly, 'Differentia constituens singulare significatum, non determinat essentiam absolute, sed sub ratione qua actu ens'—ii, d. 3, a. 3, q. 2, p. 57; *ibid.*, ad 1^{m} and 3^{m}.

Perhaps it is because the existence of the composite is due primarily to form that Richard seems to revert to the individual form when he says, 'Res est singularis per suam propriam essentiam sub ratione qua indivisibilis, salva integritate sua, et hoc modo si Deus faceret actu aliquam formam sine materia, illa esset singularis'—ii, d. 24, a. 3, q. 4, ad 5^{m}, p. 312; *Quaest.* 8, ff. 18^{v}a, 43, f. 148^{v}a.

This alternative view seems preferable to that of individuation as an indivisibility conferred on the species by existence for (1) to say that the individual is distinct by being indivisible does not say how it is distinct from all other individuals of the same species, (2) if individuality is given with existence, there can be no potential singulars—a proposition difficult to reconcile with the Divine creativity or man's artistic powers, and (3) if singularity is negation of divisibility, what corresponding *differentia* is added to our knowledge of the universal when we know the singular? (cf. p. 252).

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[1] III *Met.* c. 3, f. 79^{r}.

THE COMPOSITE

In his doctrine of the composite Richard has much that resembles the speculations of his predecessors. Thus, because matter and form are not able to subsist naturally by themselves, he regards them as *partes entis* rather than *entia* or as potential parts constituting one actual essence—ii, d. 12, a. 1, q. 2, p. 145; ii, d. 13, a. 3, q. 1, p. 202. Again, he allows that both matter and form exercise a causality in respect of the composite, form being prior only in the sense that it has a greater degree of actuality or that it is that by means of which the composite chiefly acts—ii, d. 15, a. 3, q. 1, p. 202; i, d. 5, a. 1, q. 1, p. 68.

Like Thomas of York, Richard raises the question of the relation between the *essentia* and the *esse* of the composite. Before receiving actual existence, the essence was only possible inasmuch as it existed in the mind of God, or of man, or in any other efficient cause capable of producing it. After receiving existence, the essence acquires a new property, namely, a real relation to the giver of existence, especially when that giver is the Creator. 'Esse nullam rem absolutam addit super essentiam sed tantummodo relationem ad seipsam, ut habens rationem suppositi et respectum ad creatorem qui debetur essentiae creaturae in quantum creata est' [1]—*Quodl.* i, q. 8, p. 14; *Sent.* ii, d. 3, a. 1, q. 1, p. 49; *Quaest*, ii, f. 29ʳa. This quotation shows that for Richard, as opposed to St. Thomas,[2] essence and existence are not really distinct. If they were, he points out that either existence would exist in itself even though it could not be defined *per se*, or it would be an accident having more actuality than its subject—a most impossible alternative, since, as Aristotle says (*De Gener.* i),[3] accidents do not give simple existence but only a certain type of existence. Moreover, were existence distinct, it could be linked to essence only by some other reality and this would involve an infinite regress—*Quodl.* i, q. 8, p. 12; *Sent.* ii, d. 3, a. 1, q. 1, p. 49.

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[1] This was the view of Henry of Ghent, who brought the problem of essence and existence into great prominence—cf. Hocedez, *op. cit.*, p. 397 f.

[2] Cf. *De Ente*, cc. 5, 6; *Contra Gentiles*, ii, c. 53, n. 2.

[3] i, S. 1, c. 3, f. 158ᵛa.

Are essence and existence only logically distinct? [1] No, an identity of essence and existence would involve the self-existence of the creature, whereas of God alone is it true that His essence is His existence. Again, if the creature were self-existent, its existence would have to be caused by the essence to which it belongs, but this is impossible because causation is a real operation and therefore, as Algazel in his *Met.*[2] says, presupposes an actual existence in the order of nature. Further, things that exhibit a difference for reason alone can be predicated of one another, e. g. genus of species and species of genus, but obviously essence and existence cannot be thus predicated, for then there would be no possible creatures—ii, d. 3, a. 1, q. 1, p. 9; *Quodl.* i, q. 8, p. 12; *Quaest.* ii, f. 29^{r}a.

It seems, then, that Richard, like Bacon, regards the distinction between essence and existence as something intermediate between a logical and real distinction.[3] The relation, which existence confers, is well fitted for this *via media*, since, on the one hand, it confers a positive but not absolute perfection, and on the other, it has not even the inseparable inherence of an accident for, as is clear from the example of paternity, it implies nothing more than a foundation—*Quodl.* i, q. 9, p. 15. That the something added by existence is only what might be called virtually distinct from the essence is also to be gathered from Richard's observation in *Quodl.* i, q. 8, p. 13—'Debes notare quod essentia, ens, verum, unum, bonum, idem videntur dicere sub intentionibus diversis', as well as from his defence against the accusation of extending the Divine identity of essence and existence to creatures—'sed si intelligatur esse per essentiam sicut quasi per quoddam principium formale essendi vel per modum formae significatum, haec dico propter hoc in compositis essentia comprehendit materiam et formam; sic dico quod ens creatum est per suam essentiam'—*Quodl.* i, q. 8, ad 1^m, p. 14.

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[1] Such was the opinion of Godfrey of Fontaines, a contemporary of Richard—cf. Hocedez, *op. cit.*, p. 406.

[2] Cf. *Logica et Philosophia* ed Liechtenstein, Cologne 1506, Lib. I, tract. 1, c. 7, f. 21^{v}a and c. 10, f. 23^{r}a.

[3] So too Henry of Ghent, who advocates a 'distinctio intentionalis'—cf. Hocedez, *op. cit.*, p. 398.

Concerning the two other problems that should be raised under the discussion of the composite, namely, those of the nature of the accidents and the operation of the composite,[1] Richard contributes nothing to what has been already said by his predecessors. I turn then to his view of the various types of composites in the hierarchy of the universe by considering his cosmological theories.

COSMOLOGY

The four elements, the lowest metaphysical composites in the universe, have only one form which is directly united to their matter—ii, d. 14, a. 2, q. 1, p. 175. Hence, when they enter into such change as that in which one element is transformed into another, we have the simplest type of becoming, viz. *resolutio usque ad essentiam materiae primae*, such matter having no active potency for the form of the element to be received—ii, d. 14, a. 2, qq. 1 and 3, pp. 175, 179. In this simplest type of becoming is seen the fundamental law of transmutation, namely, the gradual recession of the present form before the progressive eduction of the new form. This law was implicitly contained in the declaration of Averroes in *De Substantia Orbis*[2] that the elemental forms can be received *magis at minus*.

Elements may enter into a second type of change, viz. that in which two or more of them combine to produce a mixture. The important question here, for Richard, as for Bacon, is what happens to the elements thus combined. Clearly they do not remain in the mixture according to their actual essence, for in that event the elements and the mixture would be two bodies occupying the same place; and this again would result in further complications, for if the two forms were actually there, they would be followed by their own dimensions. Similarly, two contrary elements, such as fire and water, would be able to coexist in the same composite. On the other hand, if there is any meaning in the assertions of Aristotle in 2 *De Gener.*,[1] Augustine in *De Quant. An.*,[2] and John Damascene in *lib.* 3, c. 16[3] that all bodies are composed of the four simple bodies, we must suppose that the elements remain in mixtures, not indeed as 'plura tota in actu, sed secundum suas essentias incompletas' acting as disponents for the ultimate homogeneous form of the mixture—*De Gradu*, f. 176^{v}b; *Quaest.* 40, f. 138^{v}b; *Sent.* ii, d. 15, a. 1, q. 1, p. 195.

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[1] Tempier's condemnations as regards these problems are No. 103: Quod forma quam oportet esse et fieri in materia, non potest agi ab illo quod non agit ex materia. No. 139: Quod accidens existens sine subiecto non est accidens, nisi aequivoce; et quod impossibile est quantitatem sive dimensionem esse per se; hoc enim esset ipsam esse substantiam. No. 140: Quod facere accidens esse sine subiecto, habet rationem impossibilis implicantis contradictionem. No. 141: Quod Deus non potest facere accidens esse sine subiecto, nec plures dimensiones simul esse.

[2] Cf. c. 1, f. 3^va.

Further, the Commentator on *Met.* 7[4] definitely says, 'Forma substantialis in quolibet ente est aliquid additum formis complexionalibus in rebus miscibilibus et primis qualitatibus quattuor'— *Quaest.* 40, f. 138^{v}b. Aristotle supports this in I *De Gener.* c. de mixtione[5] where he says, 'neque manent igitur actu ut corpus et album, neque corrumpuntur, neque alterum neque ambo, salvatur enim virtus eorum'—*ibid.*, f. 138^{v}a. Lastly, Avicenna in 10 *De Anima*, c. de complexione[6] argues that a mixture is composed of contrary qualities; this must mean that it is composed of the contrary forms of the elements, for the qualities are not separated from the form—cf. *De Gradu*, f. 175^{r}. Hence concluding that the elements must remain in mixtures, Richard likens their existence to that of secondary colours in primary ones, 'Haec opinio de existentia elementorum in homine et in quolibet alio mixto potest persuaderi sic, videmus enim quod colores medii simplices qualitates sunt, et tamen dicunt constare ex extremis propter hoc quod in coloribus mediis sint remisse et magis ab extremitate recedentes'[7]—*Quaest.* 40, f. 138^{v}a.

Above the elements and mixtures Richard ranks the incorruptible celestial bodies, which enter into all terrestrial activity, even disposing, but not forcing, the will of man[8]—ii, d. 14, a. 3,

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[1] ii, S. 3, c. 2, f. 173^{r}a.

[2] *P.L.* 32: 1036.

[3] *Ibid.*, *P. Gr.* 94: 1068.

[4] vii, S. 2, c. 10, f. 85^{r}a.

[5] i, S. 3, c. 7, f. 166^{v}a.

[6] Cf. Bk. XI, c. 1, f. 44^{v}b.

[7] St. Thomas holds that the elements remain in a mixture virtually—*S. Theol.* i, q. 76, a. 4, ad 4.

[8] The chief condemnations of Tempier regarding celestial influence are No. 88: Quod nihil esset novum nisi coelum esset variatum respectu materiae generabilium. No. 106: Quod omnium formarum causa effectiva immediata est orbis. No. 137: Quod quamvis generatio hominum possit deficere, virtute primi tamen non deficiet; quia orbis primus non solum movet ad generationem

q. 5, p. 188. Of these bodies there are ten—the seven planets, the firmament of fixed stars, the crystalline heavens, and the empyrean. The eight inner spheres possess, in addition to the diurnal movement from East to West communicated to them by the self-moving crystalline sphere (ii, d. 14, a. 1, q. 2, p. 168), certain proper movements. In the case of the eighth sphere, Richard, following Ptolemy and ignoring Ibn Thâbit's trepidating movement which had been utilized by Grosseteste and Bacon,[1] makes the proper movement to be one of a degree in a century from West to East.[2] In the case of the planets, with the exception of the sun, he makes it to be one of deferents and epicycles, as well as the West to East movement of the eighth sphere in which the planets participate. The sun has only a movement of its deferent without an epicycle—ii, d. 14, a. 3, q. 2, p. 185; *ibid.*, a. 1, q. 4, p. 171.

Around the eight movable spheres and the crystalline heaven, all of which are formed from the fifth essence, is the unmoved empyrean. Aristotle failed to recognize the existence of this sphere, for in 1 *Ce. et Mundo* [3] he supposes that there is nothing outside the corporeal heavens; but this failure is not surprising, since he knows only the existence of such heavenly spheres as fall under the senses. The empyrean, however, is the imperceptible place of the angels and the blessed. Concerning it, we

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elementorum, sed etiam hominum. No. 143: Quod ex diversis signis coeli signantur diversae conditiones in hominibus tam donorum spiritualium quam rerum temporalium. No. 206: Quod sanitatem, infirmitatem, vitam et mortem attribuit positioni siderum et aspectui fortunae, dicens quod si aspexerit cum fortuna, vivet; si non aspexerit, morietur. No. 207: Quod in hora generationis hominis in corpore suo et per consequens in anima, quae sequitur corpus, ex ordine causarum superiorum et inferiorum inest homini dispositio inclinans ad tales actiones vel eventus—Error nisi intelligatur de eventibus naturalibus, et per viam dispositionis.

[1] On Richard's complete acceptance of Ptolemy, see P. Duhem, *Le Système du Monde*, t. 3, p. 484 f.

[2] Richard seems to ignore the sixth proposition condemned by Tempier: Quod redeuntibus corporibus coelestibus omnibus in idem punctum, quod fit in XXX sex milibus annorum, redibunt idem effectus, qui sunt modo. Other propositions applying to celestial movements are No. 91: Quod ratio Philosophi demonstrans motum coeli esse aeternum non est sophistica; et mirum quod homines profundi hoc non vident. No. 93: Quod corpora coelestia habent ex se aeternitatem suae substantiae, sed non aeternitatem motus. No. 186: Quod coelum nunquam quiescit quia generatio inferiorum, quae est finis motus coeli, cessare non debet; alia ratio, quia coelum suum esse et suam virtutem habet a motore suo; et haec conservat coelum per suum motum. Unde si cessaret a motu, cessaret ab esse.

[3] i, S. 7, c. 1, f. 23^{r}b.

can only say that it possesses a uniform light, that it contains no stars, and that it is what is meant by 'the heavens' in the statement in *Genesis* to the effect that God created the heavens and the earth, for 'the heavens' could not mean the firmament, since that was made on the second day—ii, d. 2, a. 3, qq. 1 and 2, pp. 43 and 44.

Of the plant and animal kingdoms, which rank above the incorruptible but inanimate celestial bodies, Richard says little of value that has not been introduced elsewhere in these pages.

PSYCHOLOGY

That Richard, like all Scholastics, was profoundly interested in psychology in its widest sense is borne out by his interesting accounts of sleep, hypnotism, and suggestion (*Quodl.* iii, qq. 8, 10, 11), by his physiological inquiries, by his frequent references to the great Arabian doctor, Costa-ben-Luca. But since his concern with bodily functions does not fall directly within our scope, this exposition of his psychology will be confined to his views of the human composite and of the soul as an independent entity.

The human composite, he tells us, is most truly a composite, for body and soul are intimately related and not merely juxtaposed or linked together. As Aristotle in 2 *De An.*[1] says, the soul is that by which we live, feel, move, and understand, and it is especially that by which the body is what it is, since through the soul alone can the human composite be placed in its species. Again, ratiocination, the highest act of man, has its root in the rational soul; therefore, it must be by that soul that the composite man is assigned to its species. Similarly, the happiness for which we long and which is satisfied by the vision of God is possible only for a rational soul; consequently, that soul must be a part of our human composite, and being the most perfect part, it places us in our species—ii, d. 17, a. 1, q. 3, p. 216; *Quaest.* 38, f. 116^{v}a; *Quodl.* ii, a. 3, q. 2, p. 19. Even at death, this intimacy between the body and the soul is not dissolved, for the separated soul still has an aptitude for its body—ii, d. 16, a. 1, q. 5, p. 209. Indeed, it is just this aptitude which shows that the complete actuality of the soul, as ordained by

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[1] ii, S. 1, c. 2, f. 131^{r}a.

God, demands union with the body, a union that can be so complete because of the extensive activity of the soul as an incorruptible entity and of the inability of its own spiritual matter to satisfy its desire.

Not the soul alone, then, but the whole composite constitutes the real person. Yet, if Richard thinks that the view of Hugh of St. Victor (II *Sacr.* i, c. antepenult.[1]) and of Avicenna that 'anima per se sit aliquid in se et per se complete existens et quod sit persona completa' must be rejected on the grounds that it would undermine the real unity of body and soul (iii, d. 7, a. 3, q. 1, ad 3^m, p. 65; *Quaest.* 7, f. 15^va), he does not follow Aristotle in regarding the soul merely as the entelechy of body. Rather, like Pecham, he constantly asserts that the substantial being of the individual soul does not wholly depend on its body. 'Dico quod anima rationalis nec est totaliter dependens a corpore nec totaliter independens . . . quantum enim ad esse simpliciter non est dependens a corpore quia potest habere esse sine corpore, cum corpore corrupto ipsa per naturam maneat incorruptibilis . . . quantum autem ad completum modum essendi est dependens a corpore, ipsae enim animae a corporibus separatae non habebunt suum completum modum existentiae usque ad corporum suorum resumptionem eo quod anima nata est esse pars, et pars habet magis completum suae existentiae modum in toto quam extra totum ceteris partibus'—*Quaest.* 38, f. 119^vb; iii, d. 5, a. 2, q. 1, p. 49.

In so far as the complete nature of the soul demands union with its body, the soul is dependent; inasmuch as the soul may exist by itself and comes into being by creation, while the body comes by generation, it is independent. This independent nature means for Richard, as for Pecham, that although the soul is rightly called the form of man, because it is the chief part in the human composite (*Quaest.* 7, f. 15^va), it is not the only form in man. But are there other reasons for supposing that the body has its own form or forms? Richard thinks there are, and that they can be deduced from experience.

After the departure of the rational soul of man we see that the dead body retains the same accidents as the living body. How are we to explain this phenomenon if the rational soul is the only form in man? It is generally agreed, Richard continues, that the similarity of quantity, figure, &c. cannot be ascribed to chance, for that which is due to chance occurs only rarely—*Quaest.* 39,[1] f. 123^{v}b; ii, d. 17, a. 1, q. 5, p. 220. Can it be, as is sometimes proposed, that the accidents of the corpse are similar to but really different in number from those of the living body? [2] If this were admitted, we should not need any form in man other than the intellective soul. Let us see, then, what the introduction of something similar into the corpse would imply.

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[1] ii, c. 11, *P.L.* 176: 406.

Richard writes, 'Si materia determinatur naturaliter ad consimilia accidentia, oportet quod ista determinatio sit vel ex parte essentiae ipsius materiae secundum se, vel ex parte particularis agentis ad corruptionem, vel ex parte corporis quinti vel ex parte ipsius intellectivae quae separatur, vel ex parte priorum accidentium'—*De Gradu Formarum*, f. 172^{r}a. Now the essence of matter cannot produce new and similar accidents, since, of itself, matter is not determined to one accident more than another. The second suggestion is impossible, because a corrupting agent works in virtue of a nature repugnant to that of its object, and so the accidents of the corpse would be dissimilar to those of the living body. The third suggestion is not acceptable because if at the same time a tall fair person and a small dark one were beheaded, like effects would be produced in the two resulting corpses since the fifth body, i. e. the heavenly bodies, would be in the same position; but, as a matter of fact, the one corpse will be tall and fair, the other small and dark. Fourthly, the separated intellective soul cannot cause the similarity, for this would imply (*a*) that in the order of nature the separation of a cause is able to precede the effect, (*b*) that there is a time when nothing remains the same in number except the essence of matter, and (*c*) that the rational soul determines its matter to the *forma cadaveris*, a form repugnant to the rational soul as the form of life. Lastly, the accidents of the living body cannot produce this similarity of quantity, figure, &c., because this too would mean that the cause would be corrupted before the effect was produced—*De Gradu Formarum*, f. 172^{r}a; ii, d. 17, a. 1, q. 5, p. 220; *Quaest.* 39, f. 123^{v}f. A further suggestion mentioned only in the last two works is that the bodily spirits account for the similarity, but Richard rejects this on the ground that Costa-ben-Luca has said in his *De Differentia Spiritus et Animae* [1] that the bodily spirits perish on being separated with the intellective soul. Besides, being vital spirits, they could not determine matter to the *forma cadaveris*.

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[1] For the criticism of Godfrey of Fontaines on this *quaestio* cf. Hocedez, *op. cit.*, p. 420 f.

[2] Cf. Gilles de Lessines, *De Unitate Formae*, ed. M. de Wulf, Louvain 1902, pp. 8, 14, 65, 69, 85.

Such are the difficulties involved in the assumption that the accidents of the corpse are only similar to those of the living body. Hence in order to explain what experience shows us we are forced to conclude that the accidents of the body remain the same in number after the recession of the intellective soul. Granting that this is the case, how can we explain their permanence without supposing a *forma corporeitatis*? The sameness cannot be due to the intellective soul for that is no longer present in the corpse. Again, it cannot be asserted with Avicenna (*Phys.* i, c. 6) [2] that certain accidents are found in the composite by reason of its incorruptible matter and others by reason of its form, and that the former type, e.g. figure, colour, quantity, and wounds, could well remain after death. The accidents of matter must be corrupted with the corruption of that which gives stability, namely, the substantial form. This view of Avicenna, which seems to be supported by the Commentator, who says in his *De Substantia Orbis*,[3] 'Dimensiones interminatae praecedunt formam substantialem in materia', is opposed to the doctrines of Aristotle (*Phys.* I and *Met.* I) [4] that matter plus form is the cause of all accidents and that no accident is able to be in matter unless by the mediation of some substantial form—*De Gradu Formarum*, f. 171^v; ii, d. 17, a. 1, q. 5, p. 220; *Quaest.* 39, f. 123^{r}b. Consequently, since the numerical identity of the accidents in the living body and in the corpse cannot be due either to the intellective form or to matter, its explanation requires some other form in man besides the intellect—a form that will remain the same in life and in death.

If a single form in man fails to account for the permanence of the body after death, it is also useless for an account of generation.[1] In the human embryo the incomplete vegetative and sensitive forms educed from the potency of matter exist before the coming of the rational soul created by God. This we have to admit if that which is generated by the parents is to have any reality. But the significance of this admission must not be minimized by assuming that the vegetative and the sensitive forms have only a priority according to nature, for Aristotle says that they have also a temporal priority that makes the embryo really an animal before it becomes human. Again, the admission that these forms must exist before the intellective soul, if we are to account for the embryonic life, movement, and sensation, must not be minimized by supposing that they are corrupted on the arrival of the intellective soul.[2] There is no reason for such a corruption, for the vegetative and the sensitive souls have nothing repugnant to the intellective soul; they are incomplete and act merely as disponents. Were they corrupted, their matter being stripped of all disposition would be just as apt to receive the form of an ass as of man. Again, their corruption would mean that nature had produced them in vain and this is contrary to the teaching of Aristotle in 3 *De An.*[3] Further, experience shows us that a leper usually generates a leper, but this could not be true if on the advent of the intellective form, all previous forms were corrupted and nothing but primary matter remained. Lastly, it cannot be said that the vegetative and sensitive forms remain virtually in the intellective soul as a trigonum in a tetragon,[4] for they function independently of the intellective soul. If, therefore, the matter of the embryo is to accept one form rather than another, or if the offspring is to have any basis for its likeness to its father rather than to any other man, or if there is to be any meaning to the phrase 'man generates man', the vegetative and sensitive forms must exist before, and must continue to exist after, the arrival of the rational soul—*De Gradu Formarum*, f. 171^{r}b f.; ii, d. 17, a. 1, q. 5, pp. 219, 221; *Quaest.* 39, f. 125^{v}a.

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[1] Ed. C. S. Barach, Innsbruck 1878, p. 123.

[2] *Suff.* i, c. 6, f. 17^{r}b.

[3] *Ibid.*, c. 1, f. 3^{r}b.

[4] Cf. *Phys.* i, S. 2, c. 3, f. 7^{r}a. *Met.* reference not found.

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[1] This had been the chief point of Kilwardby's objections to the unity theory.

[2] Such a corruption had been supported by St. Thomas (cf. *Quodl.* i, q. 4, a. 6, and *C. Gentiles*, ii, c. 89) on the grounds that if the vegetative and the sensitive souls remained, the intellective form would become accidental. Richard points out that this wrongly assumes that the inferior souls are complete in themselves, whereas in fact, they are only disponents for the intellective form.

[3] iii, S. 2, c. 1, f. 181^{v}b.

[4] Cf. St. Thomas, *S. Theol.* i, q. 76, a. 3.

A single form is also incompatible with the natural corruptibility of man. We know that the intellective soul is incorruptible, and even if it were not, it could not be the intrinsic principle of corruption because no form acts naturally to the corruption of its own existence. Nor can prime matter be this principle, since in addition to Aristotle's statement in *Phys.* i [1] that the essence of primary matter is incorruptible, we know that matter is not active, but of itself is as indifferent to one form as to another. If there were only these two incorruptible elements in man, their union, i.e. the human composite, would be incorruptible. The difficulty cannot be evaded by suggesting that the accidents either directly or indirectly cause the corruption of the composite; these accidents depend on the composite, and the corruption of an effect could not be responsible for the corruption of its cause. Consequently, there must be in man some intrinsic principle of natural corruption, and this is the destruction of the natural humours and the heat which are bound up with the *forma corporeitatis*.[2] Man must possess, then, some other form in addition to the intellect—*De Gradu Formarum*, f. 173^{r} and ^{v}; *Sent.* ii, d. 17, a. 1, q. 5, p. 221; *Quaest.* 39, f. 127^{r}a.

Further, the consideration of how elements remain in a mixture (cf. p. 231) also undermines the theory of only one form in a being—*Sent. ibid.*, p. 219. To this it might be added that if any of the four elements can be said to contribute to the nourishment of plants and animals, they must be in some sense in the plant and animal bodies—*Sent. ibid.*, q. 1, p. 195; *Quaest.* 39, f. 27^{v}b.

In addition to these scientific and philosophical considerations, Richard repeats Pecham's theological arguments based on the body of the risen Christ and the Eucharist [3] and adds to them an argument drawn from the doctrine of original sin.

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[1] i, S. 3, c. 5, f. 22^{v}a.

[2] Undoubtedly it is because of the immortality and origin of the human soul that Richard writes, 'Dico quod ista propositio est dubia: utrum in bruto sit una forma tantum. . . . Et praeterea si concedat aliquis quod in bruto non est nisi una forma substantialis tantum, propter hoc non oportet quod concedatur in homine, quia ad constitutionem hominis concurrit et agens per generationem et agens per creationem'—*Quaest.* 39, f. 135^{r}a. However, in the *De Gradu Formarum*, f. 177^{v}a we read, 'Declaratum est quod in omni homine et in quolibet bruto et in qualibet planta et universaliter in quomodocumque mixto sunt plures formae substantiales quamvis unius compositi una sola sit forma substantialis completiva', cf. p. 241.

[3] Cf. p. 188.

The privation of man's original sanctifying grace found in the nature of every child is not there by an evil act of the child's will or by reason of the essence of matter because first matter has nothing of corruption in it; nor is it there in virtue of the rational soul or of the union of that soul with matter, for, then, it would have been in Adam. It can be there only because of some disposition educed from the potency of matter by the power of the generator, and this means that it is in matter in virtue of some form other than the rational soul [1]—*De Gradu Formarum*, f. 174^r f.; ii, d. 17, a. 1, q. 5, p. 222; *Quaest.* 39, f. 128^{r}a f.

While it might be allowed that all these arguments provide very substantial evidence for an incomplete form in man in addition to the rational soul, two serious objections might be brought against it: (*a*) a *forma corporeitatis* remaining identical in a living and dead body would mean that one and the same substance could be ranked successively in two different genera, viz. organic and inorganic,[2] and (*b*) only one form can be consistent with indivisibility.[3]

To the first Richard replies that if that which is one and the same is incomplete, it can be placed in two different genera, for the incomplete essence of primary matter is one in number and yet is found under the form of plant and then under the form of animal—*Quaest.* 39, f. 131^{r}a. It may also be urged that the objection confuses the *forma corporeitatis* with the constitutive principle of the composite, which alone fixes it in its logical classification, the *forma corporeitatis* being only that by which body is a genus for both living and dead bodies. 'Dico sic quod corpus, unde corpus genus est ad corpora mortua et viva, ratione aut forma corporeitatis tantum suppositum est in genere corporis, ratione autem formae vitae in genere corporis viventis, ratione autem formae cadaveris in genere corporis mortui. Ego autem dico quod in mortuo et in vivo manet idem individuum in numero huius generis quod est corpus non huius generis quod est corpus vivum et ita non habes quod idem in numero sit in diversis generibus'—*De Gradu Formarum*, ff. 177^{v} ad 4^{m}, 178^{r} ad 5^{m}.

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[1] The foregoing arguments from theology, philosophy, and experience show that great strides had been made after the tentative pluralism of Grosseteste. Bacon had gone to the extreme of making every perfection in a being correspond to a different form, and William de la Mare had followed him in supposing that every being had forms corresponding to its genus and species, but these extremes, which brought the theory into great disfavour, resulted in a clearer statement of the position of the Pluralists. Consequently, such arguments as those advocated by Pecham and by Richard anything but justify M. De Wulf's insistence on the notion that the multiplicity of perfections demanding a plurality of forms was the basis of pluralism—cf. his edition of the *De Unitate Formae* of Gilles de Lessines, pp. 28, 34, 91. Similarly the statement of the same writer that the doctrine of the plurality of forms was not Augustinian in temperament but a product of a false peripateticism (cf. *ibid.*, p. 22) is of little value, for the Pluralists appealed to experience and to theological doctrines rather than to Aristotle, and secondly, they relied on Augustine's theory of *rationes seminales* as an argument for the existence of more than one incomplete form in beings.

[2] This is the objection of Gilles de Lessines, *op. cit.*, pt. 3, c. 3, p. 64. Dietrich of Freiburg maintained that if the *forma corporeitatis* remained the same after death, there would be no difference between a living and a dead body, and death would not be possible. Cf. 'De Corpore Christi Mortuo' in *Die Schriften Meister Dietrichs* (*Beiträge* series, Bd. V, Heft 5–6. p. 114).

[3] This is the view of St. Thomas: 'Nihil enim est simpliciter unum nisi per formam unam, per quam habet res esse'—*S. Theol.* 1a, Q. 76, a. 3.

To the objection that a plurality of forms is inconsistent with indivisibility Richard retorts that metaphysical considerations should give way to the necessity for making experience the basis of speculation. For instance, in the case of a tree with a number of dead branches it is clear that the animating form does not exist in the dead parts, yet these parts retain the substantial form of tree. In this case, then, we have to admit two forms in the same indivisible being whose transcendental unity has been in no way compromised because the forms are 'plures *partes* actu, non tamen sunt plura tota in actu'.—*Quaest.* 40, f. 137^{r}a, *ibid.*, 41, f. 141^{v}b; *Sent.* ii, d. 17, a. 1, q. 5, p. 219.

This second objection, which Pecham had already forestalled, was the chief weapon of the anti-pluralists, but while it may have been legitimately raised against the implication of juxtaposed forms in the exaggerated pluralism of Bacon, it was beside the mark where Pecham and Richard were concerned. Both of these men realized that the existence of more than one form must be neither a potential nor an actual existence, but an incomplete one entirely subordinated to the ultimate form. For Richard, these subordinated forms, whether of the elements, of the bodily organs with their diverse activities, or of the body as a whole, were no more distinct or separate entities than the potentially infinitely divisible parts in a *continuum*—*Quaest.* 40, f. 137^{r}a; *De Gradu Formarum*, f. 175^{v}; *Sent.* ii, d. 17, a. 2, q. 4,

p. 227. Each lower form exists as a matter for the successively higher one, the highest corporeal form, the *forma corporeitatis*, together with primary matter and the lower forms making an incomplete composite that acts as a *materia proxima et disposita* for the rational soul [1]—*Quaest.* 39, f. 130ʳa; *De Gradu Formarum*, f. 178ᵛ ad 9ᵐ. In fact, so intimate is the relation between the *forma corporeitatis*, the noblest form educed from the potency of matter, and the rational soul that on the separation of the latter, the former loses its stability, and corruption results because only an imperfect substance remains.

'Forma incompleta . . . quae educitur de potentia ipsius materiae ex qua et materia constituitur unum compositum incompletum, quod cum aliquibus suis accidentalibus dispositionibus incompletis est materia proxima et propria ad recipiendum animam intellectivam, per quam formam sine intellectiva materia non potest constitui in esse stabili et quieto et plene terminato. Et ideo recedente intellectiva, statim incipit fieri resolutio continua usque ad essentiam materiae primae naturaliter. . . . Nec compositum ex materia et illa forma incompleta habet plene rationem substantiae, inquantum substantia est, nec corporis, inquantum corpus est, sed tantummodo incomplete et per quamdem reductionem, quamvis non ita incomplete conveniat sibi ratio substantiae, unde substantia est, sicut materiae primae, nec ita a remotis reducitur ad praedicamentum substantiae. Unde per animam intellectivam non tantum constituitur homo sub ratione qua homo, sed etiam sub ratione qua complete substantia, et sub ratione qua completum corpus, et sic de aliis. Ex praedictis potes videre quod sic non obstante incompleta et indeterminata actualitate materiae primae ex ipsa et forma elementari constituitur unum per essentiam. Ita dico quod non obstante incompleta et indeterminata actualitate materiae proximae et propriae [2] ad recipiendum intellectivam ex ipsa intellectiva constituitur unum per essentiam'—ii, d. 17, a. 1, q. 5, p. 221; *Quaest.* 39, f. 130^{r}a.

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[1] If the forms of the elements and of the various bodily parts do not constitute actual wholes, much less will metaphysical entities such as genus, species, and differentiae for these are only the same thing viewed at different stages of determination—ii, d. 14, a. 2, q. 1, ad 1ᵐ, p. 175; *Quaest.* 39, f. 130ᵛa. Hence the objection that if several forms exist in the composite, the generic form could remain when the specific form had been destroyed is not valid because it has not been suggested that the forms of substantiality, life, &c., can have any existence or operation apart from that of the complete substantial form—cf. *De Gradu Formarum*, f. 177ᵛ ad 1ᵐ and 2ᵐ.

[2] This *materia proxima et propria* as applied to the lower forms is one of the

As we have seen in dealing with Pecham (p. 189), the *forma corporeitatis* is technically taken as the proximate matter of the intellective soul because it marks the distinction between the corporeal and the spiritual. But in reality, the proximate matter

most important points in pluralism. Olivi (1248–98) was condemned by the Council of Vienne in 1312 not, as is sometimes supposed, for holding more than one form in a being, but for neglecting to make these lower forms directly subordinate to the ultimate form. The intellective form in man, he held, perfected the lower forms only indirectly by its perfection of their matter. 'Ultima forma est solum perfectio materiae proprie'—q. 50, Codex. Vat. Lat. no. 1116 as cited by B. Jansen in 'Die Lehre Olivis über das Verhältnis von Leib und Seele' in *Franz. Stud.*, 1918, p. 171. Secondly, 'Videmus enim quod formae posteriores sunt magis intimatae materiae et magis penetrantes eius potentialitatem quam priores, et maiorum dant stabilitatem tam materiae quam toti enti; unde et habent se ad priores sicut radix ad ramos'—*ibid.*, p. 57, cited *ibid.*, p. 172. Thirdly—'Ex prima forma et ultima non fit unum proprie sicut ex perfectibili et perfectione'—*ibid.*, p. 50, cited *ibid.*, p. 171. Lastly, 'Corporales formae corporis humani non sunt proprie materia animae, quia quod secundum suam essentiam non est materia sed tantum forma, non potest esse materia alicuius'—*ibid.*, q. 51, Appendix cited *ibid.*, p. 169.

As one of the seven theologians appointed by the Minister-General to examine the doctrines of Olivi, Richard had condemned these views in 1283 (cf. Hocedez, *op. cit.*, pp. 79 f., 443 f.). But both his condemnation and the considerations that led the Council of Vienne to proclaim 'substantia animae rationalis seu intellectivae *vere* et *per se* humani corporis forma est' were based on the desire to express the view that the intellective soul is the direct perfection of the whole human body, including both its matter and its forms. This Olivi had rendered dubious by such cryptic statements as, 'pars animae intellectiva non unitur corpori ut forma, quamvis uniatur ei substantialiter,' and 'anima rationalis est forma corporis per partem sensitivam'—*ibid.*, q. 59, cited *ibid.*, p. 245, and by his stress on the soul as a mover. Nevertheless, it cannot be denied that Olivi regarded the soul as the form of man; thus he writes, 'Sic concurrunt formae quod ultima est perfectio primae et prima est quodam modo pars ultimae et quodam modo virtus et instrumentum eius, sicut sunt formae elementares formae mixti vel vegetativae et sicut vegetativa sensitivae et sicut est utraque animae rationalis. Et ideo sicut ex materia et forma vere fit unum compositum per essentiam, ita ex prima forma et ultima vere fit una forma per essentiam . . . anima rationalis cum ceteris formis corporis sunt unum per essentiam. Sicut autem illa, quae ultimo advenit, dicitur proprie forma rei et aliae praecedentes habent se ad ipsam sicut partes ad totum et sicut ⟨planta⟩ ad suam radicem . . . sic similiter anima debet dici proprie forma hominis, aliae vero quasi partes eius et instrumenta'—*ibid.*, q. 50, ad 6^{m}, cited *ibid.*, p. 173. Again, 'Ponere quod sensitiva non sit radicata in natura partis intellectivae est manifeste ponere, quod pars intellectiva non uniatur corpori nisi ut motor mobile. Hoc autem ultimum, non solum est haereticum sed etiam totius fidei enervativum'—*ibid.*, q. 59, cited *ibid.*, p. 247. Fr. Jansen's interesting articles on Olivi in *Franziskanische Studien*, 1918 (pp. 153, 233), give a full account of Olivi's juggling between a juxtaposition and a hierarchy of forms.

includes, in addition to the *forma corporeitatis* and its subordinate forms (cf. ii, d. 27, a. 1, q. 3, p. 226; *Quaest.* 40, f. 138^{v}a), the vegetative and the sensitive souls, for these, though animate, are educed from the potency of prime matter—ii, d. 14, a. 3, q. 4, p. 187. Hence these souls, too, are completed by the intellective form and are not to be regarded as two distinct realities,[1] as may be deduced from our experience of the manner in which the excessive activity of either one of them interferes with the functions of the other. Consequently Richard lays it down that, 'vegetativa, sensitiva, et intellectiva in homine non sunt tres formae sed una forma per quam est in homine esse vegetativum, sensitivum, et intellectivum.'[2]—*Quaest.* 39, ff. 132^{r}a, 133^{v}b.

Because both the *forma corporeitatis* and the lower animate forms are completed by the intellective form, the intellective form is rightly said to inform the body *per se et essentialiter*[3] and to be present in every part of the body. This presence may be distributed from the heart, but the soul according to its complete powers is present in every part of the body,[4] though that presence may not be manifest because its various powers require special organs—i, d. 8, a. 4, q. 1, p. 89.

Having considered what the reality of the body implies and how that reality is subordinated to the intellective soul, which is truly the *forma corporis humani et motor* (ii, d. 1, a. 5, q. 4, p. 27), let us turn to the soul as an independent entity.

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[1] This seems to have been Olivi's view. 'Pars autem intellectiva et pars sensitiva sunt unitae tanquam duae naturae formales in una materia seu in uno supposito . . . et ita invicem sibi consubstantiales tamquam partes substantiales unius formae substantialis animae'—*op. cit.*, q. 59, cited *ibid.*, p. 248.

[2] No. 13 of Tempier's condemnation runs: Quod ex sensitivo et intellectivo in homine non fit unum per essentiam, nisi sicut ex intelligentia et orbe, hoc est, unum per operationem.

[3] The condemnations of Tempier concerning this are: No. 7—Quod intellectus non est forma corporis nisi sicut nauta navis, nec est perfectio essentialis hominis. No. 119—Quod operatio intellectus non uniti copulatur corpori, ita quod operatio est rei non habentis formam qua operatur.—Error, quia ponit quod intellectus non sit forma hominis. No. 121—Quod intellectus, qui est ultima hominis perfectio, est penitus abstractus. No. 111—Quod nulla forma ab extrinseco veniens potest facere unum cum materia. Quod enim separabile est, cum eo, quod est corruptible, unum non facit.

[4] Richard regards the animal soul as in some sense extended; it is not wholly in every part of the animal body but parts of it correspond to the bodily parts—ii, d. 15, a. 2, q. 2, p. 200.

As regards its origin, we have already seen that Richard holds that it comes into being by the creative power of God. It could not be educed from the potency of matter because Aristotle in *De Caelo*, 1 [1] has said that all which is generated is corrupted; and we know that the soul is incorruptible. Again, were the soul educed from matter, it would have only organic powers, but it is clear that the soul has other powers, for while organic powers are weakened by excessively strong objects and by age, the soul's power of reasoning is developed by these two conditions. Thirdly, the mode of understanding follows the mode of being, but ratiocination by universals, as well as the ability to reflect on itself, to be free in its appetites, and to desire God, would be impossible for a form educed from matter. Besides, a form so educed is *secundum se totam* the perfection of its matter and is corrupted at the same time as its matter; but the soul, however, has some power over and above the animation of its body and so does not depend wholly on that body. If, too, man in virtue of his reason is the end of all nature including the lowest grades of elements and mixtures as well as the plant and animal kingdoms, he must be nobler than the rest of nature, and therefore, not educed from matter. Further, the soul, through knowledge and love, stands in a definite relation to God Whose image it is; and from this dignity of the soul we must conclude that it is produced immediately by God, and not educed from matter, since, as Avicenna 6 *Met.* c. 3 [2] says, an effect cannot rise higher than its cause—ii, d. 18, a. 2, q. 2, p. 237; *Quaest.* 38, f. 116^{v}a f.; *Quodl.* i, p. 11, q. 17.

Two further views of the origin of the soul are rejected in *Quodl. ibid.*, p. 18, namely, the view that the soul is produced by some spiritual being, and the Traducian view based on the transmission of original sin. The first is untenable, for since every effect stands in a definite relation to its proximate cause, the soul would be ordained to God only through some other creature. The second is impossible because it wrongly assumes that original sin is transmitted through the soul, whereas in reality it is transmitted through the corruptible body.[3]

Consequently, the soul must be created, and the only reason why man is said to be generated by man and by the sun lies in the work of these two agents in disposing the matter on which God imposes the rational soul as the complete substantial form of man [1]—ii, d. 18, a. 2, q. 2, ad 5, p. 238.

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[1] i, S. 10, c. 1, f. 33^{r}b.

[2] 6 *Met.* c. 3, f. 92^{r}b.

[3] Richard's views on the origin of the soul are remarkably like those of Bonaventura, cf. E. Gilson, *La Philosophie de S. Bonaventure*, p. 317.

As to the immortality of the soul, Richard finds support for this article of faith in the following arguments, the second, fourth, fifth, and sixth of which had been already used by Pecham in a slightly different form. (1) To choose rightly is a virtue that brings amelioration. Therefore if he who chooses to die for the glory of God is to experience amelioration, his soul must continue to exist. (2) No creature desires naturally that for which it has no aptitude. But since the soul desires perpetual life, it must have a natural aptitude for perpetual life. (3) Every potency that is weakened by the excellence of its object is corruptible. But according to 'the philosopher' in 3 *De An.*,[2] the intellect is strengthened rather than weakened by the excellence of its object. Therefore it is not a corruptible potency, and, consequently, the substance in which it is rooted is not corruptible. (4) If God is a just judge, the reward of goodness and the punishment of evil, which are not always received in this life, require a future life. (5) The rational soul has an actuality independent of the body and bodily organs. Thus it can understand things as universals, it can choose freely, and it can reflect upon itself and upon its acts of knowing and willing. Hence the soul need not be corrupted with the body. (6) With the exception of God, there is nothing that can destroy the soul; for apart from the withdrawal of His conservation, the only other cause of corruption is the action of contraries, and this could not affect the soul because the matter of the soul is not in potency to any other specific form [3]—ii, d. 19, a. 1, q. 1, pp. 342–3; *Quaest*, 38, f. 117^{v}a.

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[1] The errors concerning the origin of the soul condemned by Tempier are: No. 110: Quod motus caeli sunt propter animam intellectivam, et anima intellectiva sive intellectus non potest educi, nisi mediante corpore. No. 105: Quod forma hominis non est ab extrinseco, sed educitur de potentia materiae quia aliter non esset generatio univoca. No. 109: Quod substantia animae est aeterna; et quod intellectus agens et possibilis sunt aeterni. No. 31: Quod intellectus humanus est aeternus, quia est a causa eodem modo semper se habente, et quia non habet materiam per quam prius est in potentia quam in actu.

[2] iii, S. 1, c. 1, f. 167^{r}b.

[3] The condemned errors regarding the incorruptibility of the soul are: No. 125—Quod intellectus speculativus simpliciter est aeternus et incorruptibilis,

If the soul has an independent and incorruptible nature, it must be a substance, and being a substance, it will be composed of matter and form. In addition to its substantiality, its contingency and its ability to change and to develop also presuppose the existence of matter in it. Such are the conclusions of Richard in *Quaest.* 6, f. 14^{r}a f., where he discusses the possibility of matter existing in the angels (cf. p. 262), though in the latter *Commentary* on the *Sentences* (ii, d. 27, a. 1, q. 1, p. 213) he declines to put forward an opinion on this important question. Such a spiritual matter, he declares, would not prevent the soul from being the form of the body, for since it is unable to terminate the appetite of the form of the soul, that form can perfect two matters—*Quaest.* 7, f. 17^{r}a.

Because the matter in the soul makes it to be a substance, the soul contains its own principle of individuation, and this, as we have seen (p. 228), means that each soul is an incommunicable determination of the specific human nature. Of the individuation of the soul Richard does not treat in detail, but he does declare the view of Avicenna (*Sex. Nat.*, lib. 5, c. 3) [1] that the body is the individuating principle to be erroneous, because the body was made on account of the soul, its priority of execution not being a priority of intention—ii, d. 17, a. 1, q. 2, ad 2^{m}, p. 215. For Richard the soul is individualized by God in virtue of its own essence and then infused into a body indifferent to every soul [2]—*Quodl.* i, a. 4, q. 1, p. 20; only after the infusion does the body acquire an adaptation to its own soul. Similarly, that inclination towards a particular body which is created with the essence of soul is perfected only after the union of the soul with its body—*Quodl. ibid.*

In passing, we might add that this tendency in the soul for its body differs from the *habitudo ad corpus* in the separated soul postulated by St. Thomas. Richard's theory was devised

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respectu vero huius hominis corrumpitur corruptis phantasmatibus in eo. No. 116—Quod anima est inseparabilis a corpore; et quod ad corruptionem harmoniae corporis corrumpitur anima.

[1] Lib. 5, c. 3, f. 24^{r}b.

[2] Cf. Tempier: No. 27—Quod Deus non posset facere plures animas in numero. No. 97—Quod individua eiusdem speciei differunt sola positione materiae, ut Socrates et Plato, et quod forma humana existente in utroque eadem numero non est mirum, si idem numero est in diversis locis. No. 32—Quod intellectus est unus numero omnium, licet enim separetur a corpore hoc, non tamen ab omni.

to ensure the close relation between the body and the soul as two different but incomplete entities and to explain why the separated soul has a particular attraction for its own resurrected body—iv, d. 43, a. 1, q. 2, p. 555. St. Thomas's theory was an expedient to save personal immortality, for the presence of matter in the soul having been denied, the principle of individuation had to be assigned to the body.

In addition to differing by the limitations that they confer upon the species, rational souls may differ in three other respects: (*a*) by the colouring that they derive from their bodies. This is due to the intimate relation between the soul and its body and to the variations in bodies arising from their different humours and different combinations of the elements and their qualities—ii, d. 32, a. 4, q. 1, p. 403; *Quodl.* ii, a. 1, q. 18, p. 58; (*b*) by their degree of participation in the species. Souls are not substantially equal, women, with individual exceptions, participating in the image of God to a lesser degree than man.[1] Hence, quite apart from any supernatural gifts, the rational soul varies in men according to different dispositions given by the Creator—ii, d. 16, a. 1, q. 4, p. 210. 'Sive animae rationales habeant materiam sive non, credo quod aliquae sunt nobiliores aliis ex creatione, non tantummodo in gratiis supernaturalibus gratis datis, sed etiam in naturalibus donis'—ii, d. 32, a. 4, q. 1, p. 403; ii, d. 25, a. 2, q. 1, p. 326; and (*c*) in virtue of their own exertions —ii, d. 25, a. 2, q. 1, p. 326.

In turning to consider the soul as an active nature, the first problem to be discussed is that of the relation between the essence of the soul and its faculties. Can the faculties be accidents?[2] Richard thinks not for: (1) since accidents are not of the essence in which they inhere, they would require another mediating accident by which they could be received into their subject, and this would involve a regress *ad infinitum*; (2) if a substance inasmuch as it is active were not able to act without the mediation of an accident or instrument, the infinite regress difficulty would again arise. Consequently, to suppose that the soul's proper action of abstracting species from phantasms cannot be accomplished without the mediation of accidents is to offer a complicated interpretation where a simple one would suffice; (3) Augustine in 9 *De Trin.* 4 [1] expresses the opinion that the potencies of knowledge and of love are in the mind *substantialiter* and not as in a subject—*Quaest.* 9, f. 20^{v}a; i, d. 3, a. 2, q. 1, p. 52. It cannot be argued that because an effect and its proximate principle are in the same genus, as is clear from the case of a line and its points, a rational potency must be an accident because it is the proximate principle of its acts, which are accidents. A rational potency is a *principium extra* in respect of its act and not an initial intrinsic term like a point in a line or an instant in time; therefore, it is not in the same genus—*Quaest.* 9, f. 23^{r}b; *Sent. ibid.*, p. 53.

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[1] Cf. Augustine, *De Trin.* xii, c. 7, *P.L.* 42: 1003—No. 124 of Tempier's condemnations runs: Quod inconveniens est ponere aliquos intellectus nobiliores aliis; quia cum ista diversitas non possit esse a parte corporum, oportet quod sit a parte intelligentiarum; et sic animae nobiles et ignobiles essent necessario diversarum specierum, sicut intelligentiae.—Error, quia sic anima Christi non esset noblilior anima Iudae.

[2] This was the view of Aegidius Romanus. Cf. *Quodl.* iii, q. 10.

Can the faculties be some absolute natures added to the essence of the soul? [2] Clearly not, for since they would not be in the soul as parts of its essence and, on the other hand, could not exist naturally apart from that essence, the suggestion really amounts to regarding the faculties as accidents—*Quaest.* 9, f. 21^{v}a; *Sent. ibid.*

Can they be incomplete forms or integrant parts of the soul standing in much the same relation to it as corporeal organs to the body? Three authorities seem to support this view. Anselm in *De Conc. Lib. Art.*[3] holds that just as a man uses his feet for walking and his tongue for speaking, so the soul uses its reason for understanding and its will for willing. Augustine in 15 *De Trin.* 7 [4] declares that the most excellent part of the soul is called mind. Lastly, Aristotle in *Pol.* iii [5] speaks of the soul as composed of reason and of appetite. Richard contends that these authorities only mean to claim that the faculties are not the whole soul but that they add a *respectus* to its essence. Since this is his own view, he goes on to say, 'respectus non est nihil, ita quod potentia intellectiva dicit compositum ex essentia animae et respectu ad actum intelligendi, et voluntas dicit compositum ex essentia animae et respectu ad actum volendi . . .

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[1] *P.L.* 42: 963.

[2] This appears to have been the view of Hugh of St. Victor who makes the soul to be a complete *ens* subsisting *per se* and the potencies varieties of form added to it—cf. *De Sac.* i, 3, 25, *P.L.* 176: 297.

[3] *P.L.* 158: 534.

[4] *P.L.* 42: 1065.

[5] c. 3, f. 127^{v}b.

ideo ipse intellectus non comprehendit animam sub omnibus respectibus suis et ideo pars vocatur'[1]—*Quaest.* 9, f. 21ᵛb. Consequently, because he supposes that the faculties add to the essence of the soul something *de genere relationis* and that this something is not nothing, because a relation is one of the ten predicaments[2] (*ibid.*, f. 21ᵛa), Richard writes, 'Potentia angeli et animae non est ipsa substantia nisi una potentia est alia, et tamen nullam rem absolutam addit super substantiam sed diversos respectos ad actus et obiecta'[3]—*ibid.*, f. 22ʳb; *Sent. ibid.*, p. 52; *Quodl.* ii, q. 21, p. 64.

If the denial that the potencies are something added to the soul seems to suggest that the soul acts by means of its essence —a type of action proper to God alone—Richard points out that the *respectus*, which the potencies confer, saves his case; and besides, the real meaning of the statement that God alone acts through His essence is either that He acts through an essence that is neither given to Him nor conserved by another or that His action is not evoked by a *ratio* other than Himself. From the further objection that if the faculties are not other than the soul, the soul would be always in act, Richard defends himself by pointing out that action requires the instrumentality of the body and of phantasms. Finally, he commends his theory by urging that it best agrees with the doctrine that the soul is the image of the Trinity. As the Divine Persons are relative properties added to the Divine essence, so the potencies are added to the essence of the soul; as the Divine Persons are interdependent, so too are the potencies, for the act of understanding arises from the act of memory and the act of will from both. The Persons of the Trinity are not identical; neither are the potencies of the soul, the functioning of the will, for example, placing the soul in quite a different relation from that involved in the functioning of the memory, a result that follows because each faculty is ordained to its act *per se*—cf. *Sent.* iii, d. 23, a. 1, q. 2, ad 2^m, p. 238; *Quaest.* 9, ff. 22^rb–23^ra; *Sent.* i, d. 3, a. 1, q. 1, p. 51.

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[1] In an exaggerated form Olivi also holds this view, 'Potentiae sunt partes animae constitutivae et quod ita differunt ab anima sicut pars a suo toto'—*Cod. Vat. Lat.* 1116, q. 54, quoted by B. Jansen, *op. cit.*, p. 249.

[2] This seems to me to come near to the theory that the faculties are accidents. Richard's position resembles that of St. Thomas which, as Gilson (*St. Bonaventura*, pp. 329, 332) points out, by trying to avoid regarding the faculties either as autonomous substances or as accidents really makes them intermediaries between substance and accidents—cf. *De Spir. Creat.*, q. 1, art. 11, ad Resp. and *S. Theol.* i, q. 77, 1, ad 5.

[3] The sensitive powers differ from the essence of the sensitive soul in the same way. 'Intellectus et voluntas non addunt rem absolutam ultra essentiam animae intellectivae quamvis ab ea differant secundum rationem et relationem. Ergo similiter potentiae sensitivae ab essentia animae sensitivae non differunt nisi secundum relationem et rationem, hoc excepto quod potentiae sensitivae non possunt esse in actibus suis nisi mediantibus organis'—iv, d. 50, a. 1, q. 1, p. 692.

We now have to treat of these faculties as active, and we take intellect first for, though Richard follows Pecham in regarding it as secondary to will, it is more important from our point of view since *per se* it involves 'form' as the likeness of the thing known—i, d. 36, a. 2, q. 1, p. 312.

Like our previous Franciscans Richard recognizes the external world as the source of our knowledge. All our concepts are derived from sense objects through the medium of the senses —a most natural method seeing that the intellect is the substantial form of corporeal matter—ii, d. 25, a. 5, q. 1, p. 332; *Quaest.* 43, f. 148^rb. As soon as the right proportion between the sense organs and an object is established, the object acts on these organs and the sensitive soul responds, the central or common sense correlating the various impressions from the different organs, the imagination retaining what the common sense correlates, and the *vis cogitativa*—a power approaching the intellect in dignity—compounding or dividing what is retained in the imagination. In the case of certain objects, two other sense faculties may be called into operation, namely, the *vis aestimativa* and the *vis memorabilis*; the former apprehends the *intentiones non sensibiles* that come with the apprehension of a particular object but not as such an apprehension, e.g. enmity in a wolf, and the latter conserves that which the former apprehends—*Quaest.* 31, f. 92^vb f.; *Sent.* ii, d. 25, a. 5, q. 1, pp. 331–3.

The phantasm resulting from the response of the sensitive soul to external stimuli possesses an *esse singulare*, but because it is a real likeness of the object, it includes a potential universal and so may become the term of the action of the active intellect whose function it is to educe from the phantasm a universal concept. 'De potentia phantasmatis repraesentantis rem sub esse singulari educitur per naturalem actionem intellectus agentis quaedam refulgentia rem repraesentans sub esse

universali, non separata a phantasmate secundum reale esse, sed in ipso remanens et sibi quasi colligata, quae directe et immediate obicitur intellectui, ut ulterius ducens in cognitionem rei cuius est similitudo sub ratione qua universalis, aut ipsa res sic repraesentata per dictam refulgentiam est directum et immediatum obiectum intellectus, et ideo mediante refulgentia praedicta intellectus reflectitur super phantasma. Non enim video rationem quare per modum praedictum non posset intelligere hoc singulare quod est phantasma, cum possit intelligere singulare cuius est phantasma, utrumque ergo per reflexionem intelligit; et pro tanto etiam potest dici aliquomodo quod obiectum suum intelligit in exemplari sensibili quod est phantasma'—ii, d. 25, a. 5, q. 1, ad 3^m, p. 332; i, d. 22, a. 1, q. 2, p. 204; *Quaest.* 12, f. 31^vb f.

Inasmuch as the *refulgentia* is that by which the intellect knows an object *sub ratione qua universalis*, it has a correspondence with the potential existence of the universal in the object; inasmuch as it has that by which the intellect reflects on the phantasm, it can be clarified by discourse and by argumentation until finally within the universal itself that which is the universal and that which is its mode of universality is distinguished. 'Ipsum universale . . . duo complectitur, id quod est universale, ut ipsam hominis vel angeli essentiam, ut intellectam praeter unitatem et multitudinem numeralem, et ipsam universalitatem quae est praedicabilis de pluribus. Sed neutro modo est in reali existentia angelus universalis nec quaecumque res alia, quia ipsa universalitas est res constituta a ratione'—ii, d. 3, a. 3, q. 1, p. 56; i, d. 22, a. 1, q. 3, p. 205; *Quaest.* 43, f. 147^ra.

In the above quotation from II *Sent.*, d. 25, a. 5, q. 1, p. 332 Richard has expressed the opinion that in addition to external singulars from which phantasms come, we know also noetic singulars. The most important reasons why he thinks we have an intellectual cognition of singulars are: (1) Aristotle in *De Anima* 3 [1] says that whatever is is the object of intellect. Consequently, since singulars participate in the nature of entity, they participate in the nature of intelligibility; (2) Augustine in X *De Trin.* c. 1 [2] points out that we will and love the singular. Therefore we must know it because we cannot will and love what is unknown; (3) Experience teaches us that we know the singular, but since no sense faculty is able to reflect on its act because it knows only *mediante organo*, it must be by the intellect that we know that we know the singular; (4) Dives in torment saw Abraham, but this could have been only through the intellectual eye; and (5) As Constabulus (Costa-ben-Luca) in *Lib. de Diff. Spir. et An.*[1] says, no judgement can be made about any two things unless we know what those things are—ii, d. 24, a. 3, q. 4, p. 311; *Quaest.* 43, f. 147^{r}b.

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[1] iii, S. 1, c. 1, f. 160^ra.

[2] *Ibid.*, *P.L.* 42: 972.

As to our method of understanding singulars, Richard mentions that through the same numerical species we understand both the universal and the singular and that though the indistinct knowledge of the universal is acquired before the distinct knowledge of the singular, we do not know the singular only by reflexion.[2] We possess a more distinct knowledge involving the resolution of the singular into its rational parts. 'Homo cognoscit ipsum singulare resolvendo ipsum in suas partes rationales. Unde sicut sit quod asinus est substantia animata rudibilis, ita sit quod hic asinus est haec substantia, hac animatione animata, hac rudibilitate rudibilis: sed per sensum non potest habere istam cognitionem de singulari'[3] —*Quaest.* 43, f. 147^{v}a; *Sent.* ii, d. 24, a. 3, q. 4, p. 312.

In our natural knowledge, whether it concerns singulars or universals, Richard, unlike his predecessors, does not admit any special Divine co-operation. If there were this co-operation, we should have supernatural knowledge, and to this type of knowledge alone are such statements as *Est lux vera quae illuminat omnem hominem venientem in hunc mundum*, and *Ego sum lux mundi* to be applied—*Quaest.* 13 (Quar. ed. pp. 226, 228). In fact, only because our natural light comes from God can we be said to see by the light of eternal truth. 'Dico quod illud quod intelligitur in lumine naturali aliquo modo intelligitur in veritate aeterna, inquantum illud lumen naturale est quaedam impressio veritatis aeternae in nobis, sicut oculus corporalis dicitur videre in sole quia videt in lumine solis'—*ibid.*, p. 237. Again, 'Incommunicabilis Veritas, quae Deus est, est ratio effectiva cognoscendi quidquid cognoscimus, sed non est ratio formalis qua cognoscimus quidquid cognoscimus, nisi mediante aliqua eius influentia, qua noster intellectus informatur, quod est lumen naturale, quantum ad naturalem cognitionem. Et ratione illius luminis dicimur naturaliter cognoscere in prima Veritate, sicut dicimur videre in sole quia videmus in lumine influxo a sole'—ii, d. 4, a. 1, q. 1, p. 67.

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[1] Ed. C. S. Barach, p. 121.

[2] Such was the view of St. Thomas. Cf. *S. Theol.* i, q. 86, a. 1.

[3] If we know singulars, we ought to know something about substance; but Richard argues that our inability to perceive the change of the substance in the Sacrament of the Altar shows that we have no such knowledge. Hence by way of reconciliation he says that although a substance does not generate its own species, its nature can be inferred from the species of its accidents—ii, d. 24, a. 3, q. 3, pp. 309–10; *Quaest.* 42, f. 144^{v}a f.

From this point of view it follows that Richard never thinks of God as the active intellect. In fact, he denies the theory that 'Intellectus agens est ipse Deus quia ipse est qui illuminando nostrum intellectum reducit ipsum de potentia in actum' although he acknowledges that it seems to harmonize with the statement of Augustine in 11 *De Trin.* c. 20 [1]—'luce incorporea mens nostra quodammodo radiatur, ut de iis omnibus de quibus iudicamus, recte iudicare possimus', and also with the words of 'the philosopher' in 3 *De Anima* [2]—'intellectus agens est in anima, sicut quidam habitus, ut lumen'. It is possible, Richard grants, that our intellect may not be educed from potency to act unless *per divinam virtutem principaliter operantem*, but if this co-operation be regarded as immediate, the natural properties of the human intellect would be undervalued. Consequently, since the active intellect cannot be God or a created separate substance illuminating the purely possible intellect (this doctrine, held by Avicenna and by Averroes, was condemned by Bishop Tempier),[3] it must be, as Aristotle says, a potency in the soul, and a potency distinguishable from the possible intellect [4]—ii, d. 24, a. 2, q. 1, p. 301.

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[1] Cf. Lib. 12, c. 2, *P.L.* 42: 999.

[2] iii, S. 1, c. 3, f. 169^{v}a.

[3] Cf. No. 123—Quod intellectus agens est quaedam substantia separata superior ad intellectum possibilem; et quod secundum substantiam, potentiam et operationem est separatus a corpore, nec est forma corporis humani.

[4] The condemned errors concerning the possible intellect are: No. 118—Quod intellectus agens non copulatur nostro possibili; et quod intellectus possibilis non unitur nobiscum secundum substantiam. Et si uniretur nobis ut forma, esset inseparabilis. No. 122—Quod intellectus possibilis est inseparabilis a corpore simpliciter quantum ad hunc actum, qui est specierum receptio, et quantum ad iudicium, quod fit per simplicem specierum adeptionem, vel intelligibilium compositionem.—Error, si intelligatur de omnimoda receptione. No. 126—Quod intellectus possibilis nihil est in actu, antequam intelligat; quia in natura intelligibili esse aliquid in actu est esse actu intelligens. No. 187—

The human intellect, then, by its own natural operations is able to understand all corporeal beings—*Quaest.* 13 (Quar. ed. p. 227). But is it confined to a knowledge of a thing *secundum id quod est* (logical truth) or is it able to see a thing in its conformity to its exemplar in the Divine Mind, i.e. *sub ratione qua verum* (ontological truth)? The second alternative Richard regards as impossible because the exemplars being the Divine essence as imitable are unknowable by man. However, a *via media* is allowable. A creature may not be able to see God intuitively, immediately, and clearly, but by arguing from the nature of created beings, it can come to some knowledge of God as the First Cause, and hence, it can know naturally a created truth in the eternal truth *sicut effectus cognoscitur per suam causam*—*ibid.*, pp. 229, 233–4, 238. Such, then, is Richard's method of agreeing with the view of his predecessors that apart from God nothing can be known with certainty by the natural intellect. This may be supplemented by his statement in ii, d. 4, a. 1, q. 2, p. 68—'Quamvis creatura sit tenebra, inquantum deficiens a plenitudine actualitatis divinae, tamen aliquid habet de luce inquantum imitatur eam. Et quamvis pura lux, quae Deus est, sit certius cognoscibilis, quantum est ex parte sua, tamen lux subobscura quae est creatura, magis est naturaliter cognoscibilis intellectui creato, eo quod sibi magis est proportionata quam lux pura.'

This brings us to the question of our natural knowledge of God. When Richard expresses the opinion that in addition to revelation, which speaks of God as the most perfect Being, we have a general knowledge of God, he does not mean that the existence of God is *per se notum* [5]—i, d. 3, a. 1, q. 2 and 3, pp. 40–1. His meaning is to be gathered from the following remark: 'Homo ex naturalibus discurrendo potest investigando cogno-

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Quod nos peius aut melius intelligimus, hoc provenit ab intellectu passivo, quem dicit esse potentiam sensitivam.—Error quia hoc ponit unum intellectum in omnibus, aut aequalitatem in omnibus animabus.

[1] The condemnations of Tempier that would apply to our knowledge of God are: No. 37—Quod nihil est credendum, nisi per se notum, vel ex per se notis possit declarari. No. 150—Quod homo non debet esse contentus auctoritate ad habendum certitudinem alicuius quaestionis. No. 36—Quod Deum in hac vita mortali possumus intelligere per essentiam. No. 211—Quod intellectus noster per sua naturalia potest pertingere ad cognitionem primae causae—Hoc male sonat, et est error, si intelligatur de cognitione immediata. No. 215—Quod de Deo non potest cognosci, nisi quia ipse est, sive ipsum esse.

scere Deum esse . . . ⟨et⟩ naturaliter cognoscere possumus quid est Deus in generali, obscure tamen et mediata cognitione, discurrendo a creaturis ad Creatorem . . . intellectus noster potest intelligere quod Deus non est asinus vel lapis et sic de aliis'—*Quaest.* 13, pp. 230–1; *Sent.* i, d. 3, a. 2, q. 1, p. 42. Hence, like St. Thomas, Richard holds that the only thing which is innate is our power to search for God.[1] By this power we can conclude from a consideration of creatures who, as effects, bear some likeness to their cause, that God is the First Cause, the Creator, the Governor, the immutable Law-giver, the Highest Harmony, the all-satisfying Good, and the ultimate End to which every being tends—i, d. 3, a. 1, q. 3, p. 4 and a. 2, q. 1, pp. 42–4; *Quaest.* 13, p. 233.

Whether God or any other spiritual nature is concerned, our knowledge always involves phantasms. This is due partly to the fact that our intellects, intrinsically weak, are aggravated by union with the corrupt flesh, partly to the absence of innate ideas in us, but chiefly to the fact that the intellect is the substantial form of corporeal matter—ii, d. 25, a. 5, q. 1, p. 331; iii, d. 14, a. 1, q. 2, p. 129; *Quodl.* 2, q. 19, p. 61. 'Naturaliter non devenimus in cognitionem spiritualium nisi per sensibilia, ut in cognitione potentiarum animae et habituum per obiecta et in cognitione Dei per effectus sensibiles et effectus intelligibiles in quorum cognitionem devenimus per cognitionem effectuum sensibilium'—ii, d. 25, a. 5, q. 1, ad 2^m, p. 332.

This denial of the soul's direct knowledge of itself, which Richard supports by the assertion of Aristotle in 5 *Topic.*[2] that 'magis scimus quid ignis quam quid anima' (*Quodl.* ii, q. 19, p. 61) is an interesting departure from Bacon, Pecham, and Bonaventura. Thus he writes, 'Naturaliter anima devenit in cognitionem sui primo per cognitionem obiectorum et ab illa veniendo ad cognitionem actuum, et ex cognitione actuum veniendo ad cognitionem sui ipsius. Sed anima non semper cognoscit actum suum, non enim semper intelligimus nos intelligere, hic docet experientia. . . . Nec scimus naturaliter quid ⟨sit⟩ anima, nisi quantum possumus arguendo concludere per

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[1] St. Thomas and Richard (cf. *Sent.* i, d. 3, a. 1, q. 2, ad 1^m) seem to be the only two thirteenth-century men who definitely reject the ontological argument of Anselm—cf. A. Daniels, *Quellenbeiträge u. Untersuchungen zur Gesch. der Gottesbeweise*, &c., Münster 1909 (*Beiträge* series, Bd. VIII, p. 122).

[2] c. 2, f. 292^vb.

actus et obiecta'—i, d. 3, a. 2, q. 2, p. 54; *Quodl.* ii, q. 19, p. 61. The inability of the soul to have an immediate knowledge of itself arises, then, from its need of objects and of phantasms[1] and from the fact that it is not always active because, as the substantial form of the body, it is impeded in its activity. Consequently, Augustine's view in 10 *De Trin.*[2] that 'anima semper se novit et semper se vult et semper sui meminit' should be understood 'de notitia habituali, non actuali'—*Quodl.* ii, q. 19, p. 62; this is clear from 14 *De Trin.* c. 7[3] where he says that a perfect musician who is disputing about geometry is none the less a musician because he is not thinking about music at that moment, for he both remembers music and understands and loves it—*Quodl.* ii, q. 19, p. 62.

Concerning our knowledge of the intelligences, the chief observations of Richard refer to the necessity of proportion between the intellect and its objects and to the indispensability of phantasms, both of which mean that we cannot know directly the angelic quiddity—cf. ii, d. 18, a. 2, q. 5, p. 113; *Quaest.* 18, f. 52^{v}b.

In his theory of the knowledge of the separated soul Richard resembles Pecham. The materials for knowledge are the intelligible species which the soul has conserved in its memory and which it conforms to the likenesses of the absolute natures of things now received directly—iv, d. 50, a. 1, q. 2, p. 695 and q. 3, p. 697. 'In vita aeterna cum erit exhonerata anima a corporis corruptibilitate, cognoscet substantiam in sua prima causa quae Deus est, scilicet videndo, ydeam creatae substantiae quae ipsam perfectissime repraesentat; tunc cognoscet creatam substantiam quantum ipsa cognoscibilis est'—*Quaest.* 42, f. 146^{r}a. In addition to a clearer knowledge of external creatures, the separated soul is better able to reflect on itself than when it informed corporeal matter, and so it knows itself immediately without advancing from its acts to its potencies—i, d. 35, a. 1, q. 2, p. 301. Lastly, it sees the Divine essence more clearly, though only inasmuch as that essence is reflected in creatures and not directly—cf. i, d. 3, a. 2, q. 3, p. 44; ii, d. 23, a. 2, q. 1, p. 285.

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[1] Cf. Tempier, No. 115—Quod anima intellectiva cognoscendo se cognoscit omnia alia. Species enim omnium rerum sunt sibi concreatae. Sed haec cognitio non debetur intellectui nostro secundum quod noster est, sed secundum quod est intellectus agens.

[2] *P.L.* 42: 984.

[3] *P.L.* 42: 1043.

In dealing with the will, the second faculty of the rational soul, I shall ignore Richard's long discussions on grace and virtue (cf. ii, d. 26 f.) in favour of the psychological aspect of will. Like Pecham, our doctor regards the will as a nobler faculty than the intellect. The object of the intellect, he thinks, is *ens sub ratione qua ens* and not even *sub ratione qua verum*, for a created intellect can never grasp the *ratio veri* or exemplar in the Divine Mind. The object of the will is *ens* under a nobler nature, namely, *sub ratione qua bonum*, nobler because a *ratio bonitatis* is one of perfection and of goodness *formaliter per se ipsam*, while a *ratio entitatis* is good only *propter rationem bonitatis*. If the object of the will is nobler than that of the intellect, the will itself must be nobler, since, as Aristotle in 2 *De An.*[1] says, we come to a knowledge of potencies through a knowledge of their acts and objects. Secondly, the primacy of the will is deducible from the facts that charity is the noblest virtue, that the love of God is our ultimate end, and from the general opinion that it is nobler to love God than to know Him. Thirdly, it is more possible to become like God in our wills than in our intellects. Lastly, the will must be nobler than the intellect because the cognitive act can never satisfy the rational creature unless it culminates in an act of the appetitive potency —*Quaest.* 10, f. 24^{r}b f.; *Sent.* i, d. 1, a. 2, q. 1, p. 21; ii, d. 1, a. 5, q. 2, p. 25 and ii, d. 24, a. 1, q. 5, p. 298.

In criticizing the opponents of the primacy of the will Richard points out that the will is the principal mover of all other potencies— i, d. 1, a. 1, ad 4^{m}, p. 19. In fact, the intellect in its complete action, the production of the mental word, depends on a previous act of the will. 'Quamvis intellectus possit in aliquem actum sine voluntate et non e converso, non tamen propter hoc sequitur quod sit nobilior voluntate; quia in complementum actus sui, qui consistit in completa formatione verbi, non potest nisi per voluntatem . . . Actus enim inquantum potest voluntas cum modico adiutorio intellectus fortissimus est. Ille autem in quem potest intellectus sine adiutorio voluntatis, debilis est et imperfectus; ita quod omnibus pensatis, maius est adiutorium quod facit voluntas intellectui ad perfectionem sui actus quam illud quod facit intellectus voluntati ad sui actus perfectionem'—ii, d. 24, a. 1, q. 5, ad 2, p. 299. Lastly,

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[1] ii, S. 3, c. 1, f. 133^{r}b.

like Pecham, our doctor contends that Aristotle in 10 *Ethics* 8[1] and Augustine in 22 lib. *Contra Faustum*[2] do not intend to assert the primacy of the intellect when they speak of the contemplative life as the highest type;[3] the intellect is only the noblest faculty when, as including the will, it is opposed to the sensitive and the vegetative powers—ii, d. 24, a. 1, q. 5, ad 6 and 8, p. 300; *Quaest.* 10, f. 26^{v}a.

From Richard's point of view, to hold a primacy of the intellect is to confuse a temporal priority with one of nature, for although the intellect, like a servant with a lamp, points out the way, the will, like the master, is not bound to follow its guidance. The co-operation of the intellect may be most necessary, for if the will has not seen and deliberated upon the various possibilities, it will be carried along by its natural movement and could not be held responsible for its action—ii, d. 24, a. 1, q. 3, p. 295; *Quaest.* 44, f. 150^{r}a and b. Nevertheless, this necessity of its co-operation does not prevent the intellect from being subordinate to the will, since the will has the ability to move itself in whatever way it chooses, and even, as experience shows, contrary to the judgement of the intellect—*Quaest.* 15, f. 42^{v} f.; *Sent.* ii, d. 38, a. 2, q. 4, p. 472. Freedom means willing the end and, though this can only occur after the activity of the intellect, we must not confuse the end of the movement with the form through which the will moves. Even God, Who has the greatest freedom, must will the end or the good—ii, d. 38, a. 2, q. 1, p. 465.

Like the intellect the other factors that may enter into an act of the will, e.g. God as the First Cause, Grace, the remote influence of the celestial bodies or the sense appetites do not interfere with the self-movement of the will. They may influence the will but they cannot force it, for that would be a contradiction in terms[4]—ii, d. 25, a. 4, q. 1 and 2, p. 329 f.; *Quodl.* i, a. 5, q. 1, p. 22.

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[1] *Ibid.*, f. 75^{v}b.

[2] *Ibid.*, c. 52, *P.L.* 42: 432.

[3] Cf. Tempier, No. 144—Quod omne bonum quod homini possibile est consistit in virtutibus intellectualibus. No. 157—Quod homo ordinatus quantum ad intellectum et affectum, sicut potest sufficienter esse per virtutes intellectuales et alias morales, de quibus loquitur Philosophus in *Ethicis*, est sufficienter dispositus ad felicitatem aeternam.

[4] The chief condemnations of Tempier concerning the will are: No. 131—Quod voluntate existente in tali dispositione, in qua nata est moveri et manente

Richard's insistence on the co-operation of the intellect and the will leads him to deny St. Thomas's theory of an innate desire in all men for the beatific vision [1] on the ground that some men do not know what the beatific vision implies and therefore cannot desire it—iv, d. 49, a. 1, q. 2, p. 658. Hence emphasizing the activity of the soul even in beatitude, Richard writes, 'Videtur mihi dicendum quod beatitudo consistit in actu intellectus et voluntatis simul. Cuius ratio est quia esse beatitudinis vitae humanae consistit in perfecta unione animae rationalis cum Deo. Haec autem unio includit animae unionem cum Deo secundum omnem sui potentiam . . . ⟨id⟩ est intellectus et voluntas'— iv, d. 49, a. 1, q. 6, p. 652. The interdependence of these powers does not prevent the will from being supreme, for beatitude is the reward of virtue, and its object, the Supreme Good, must be primarily the object of will—cf. *ibid.*, p. 654.

Of memory as the third and last faculty of the rational soul Richard says little. Its function is to retain permanently the *species intelligibles*, but because the *species imaginabiles*, which must enter into all understanding, are easily effaced from the sense organs, man forgets much—ii, d. 7, a. 3, q. 1, p. 96. Richard does not definitely reject the possibility of identifying the memory with the passive intellect, but on the assumption

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sic disposito, quod natum est movere, impossibile est voluntatem non velle. No. 132—Quod orbis est causa voluntatis medici ut sanet. No. 133—Quod voluntas et intellectus non moventur in actu per se, sed per causam sempiternam, scilicet corpora coelestia. No. 134—Quod appetitus, cessantibus impedimentis, necessario movetur ab appetibili.—Error est de intellectivo. No. 135—Quod voluntas secundum se est indeterminata ad opposita sicut materia; determinatur autem ab appetibili sicut materia ab agente. No. 158—Quod post conclusionem factam de aliquo faciendo, voluntas non manet libera; et quod poenae non adhibentur a lege, nisi ad ignorantiae correptionem, et ut correptio sit aliis principium cognitionis. No. 159—Quod voluntas hominis necessitatur per suam cognitionem sicut appetitus bruti. No. 161—Quod effectus stellarum super liberum arbitrium sunt occulti. No. 162—Quod voluntas nostra subiacet potestati corporum coelestium. No. 164—Quod homo in omnibus actionibus suis sequitur appetitum, et semper maiorem.—Error, si intelligatur de majori in movendo. No. 194—Quod anima nihil vult, nisi mota ab alio. Unde illud est falsum: anima seipsa vult.—Error, si intelligatur mota ab alio, scilicet ab appetibili vel obiecto, ita quod appetibile vel obiectum sit tota ratio motus ipsius voluntatis. No. 208—Quod duobus bonis propositis quod fortius est fortius movet.—Error, nisi intelligatur quantum est ex parte boni moventis. No. 209—Quod omnes motus voluntarii reducuntur in motorem primum—Error, nisi intelligatur in motorem primum simpliciter, non creatum, et intelligendo de motu secundum substantiam, non secundum deformitatem.

[1] *S. Theol.* i, q. 2, a. 1 and i, q. 82, a. 1.

that there is no common *ratio* under which *ens* is compared *ad actum conservandi* and *ad actum intelligendi*, he inclines towards the Augustinian theory which regards them as two potencies distinguishable at least *secundum formales rationes obiectorum*—ii, d. 24, a. 2, q. 2, p. 302. In any case, an identification of these faculties would be difficult to reconcile with his view that memory, like intellect and will, must have an active and a passive side—*ibid.*, p. 303.

ANGELOLOGY

In his angelology Richard stands in close agreement with his predecessors. Like them, he regards the perfection of the universe as requiring a crowning grade of completely incorporeal and intellectual beings. Such beings provide the link between the lower grades of creatures and the ultimate completely simple Nature. From the former they are distinguished by their absence of corporeity, for although they may assume a body, inasmuch as they move it or exercise sensible functions in it, there can be no complete relation between the angel and the assumed body—not even an aptitude such as the separated soul has for its body—ii, d. 1, a. 5, q. 4, p. 27; ii, d. 8, a. 1, q. 1 and 2, pp. 104–5. From the ultimate simple Nature they are distinguished by their varieties of composition, namely, essence and existence, matter and form, species and individual differentiae, and substance and faculties.

The first type of composition, which has been raised on p. 229, follows from the fact that the angels are not self-existent beings.[1] They were created by God in *aevum*, a state of duration that came into existence before time and that has, strictly speaking, no succession, 'quamvis aliqualiter possit ibi poni per comparationem ad tempus, vel ad nostram imaginationem. Et hoc secundum rei veritatem non est ponere successionem in aevo, sed in tempore cuius partes per successionem suam sunt coexistentes ipsi aevo'—ii, d. 2, a. 1, q. 3, p. 38; ii, d. 2, a. 1, q. 1, p. 31 f.; *Quaest.* 22, f. 66ra f.

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[1] Cf. Tempier, No. 79—Quod substantiae separatae sunt sua essentia, quia in eis idem est quo esset quod est. Further errors connected with the coming to be of the angels are: No. 5—Quod omnia separata coaeterna sunt primo principio. No. 45—Quod primum principium non est causa propria aeternorum, nisi metaphorice, quia conservat ea, id est, quia, nisi esset, ea non essent. No. 58—Quod Deus est causa necessaria primae intelligentiae: qua posita ponitur effectus, et sunt simul duratione. No. 64—Quod effectus immediatus a primo debet esse unus tantum et simillimus primo. No. 84—Quod intelligentia recipit a Deo esse per intelligentias medias.

The second type of composition demands more attention. Aristotle [1] and the author of the *De Causis* [2] denied the composition of matter and form in the angels because they believed that the angels, whom they called 'intelligences', were eternal and immutable: but we know that the angels have not every perfection of actuality; they came into existence by creation, they are able to move from place to place, and they experience various acts of understanding and of willing—ii, d. 3, a. 1, q. 2, p. 51; *Quaest.* 6, f. 14ra. Consequently, to account for these changes it is necessary to ascribe to them potentiality or matter. 'In angelo esse compositio ex materia et forma extendendo nomen materiae ad omnem possibilem naturam'—*Quaest.* 6, f. 14vb; *Sent. ibid.*, p. 52.

If we did not ascribe matter to the angel, we should have to suppose that by the same nature he could be both in act and in potency; but this is impossible because *esse in potentia* and *esse in actu* are repugnant to each other. Therefore, in the angelic essence there is one factor in virtue of which it moves itself and another factor in virtue of which it is moved; this means that in the angelic essence there is form and matter—*Quaest.* 6, f. 14 Ara; [3] *Sent. ibid.*, p. 52. If those who deny the existence of this matter imagine that they can avoid making the angels pure actualities by allowing them merely a potency in virtue of which they receive existence and conservation from God,[4] it can only be said that while they save the angelic potency in respect of God, they ignore it in respect of other angels and of inferior beings [5]—*Sent. ibid.*, p. 51. Finally, if the soul has matter, the angel is likely to have it, and such a matter as will be like that of the soul in so far as potentiality for change is concerned, but unlike it both by its inability to receive the human form and by its power to satisfy completely its own form, not allowing that form even a natural aptitude for perfecting a body such as is allowed by the matter of the soul—*Quaest.* 6, f. 15ʳa.

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[1] Cf. p. 104, n. 7.

[2] This is printed in *Opera Aristotelis*, ed. Juntas, Venice 1550. Cf. *Prop.* 18, p. 118va f.

[3] This folio, which should have been f. 15, was omitted in the numbering.

[4] Cf. S. Thomas, *S. Theol.* i, q. 50, a. 2, ad 3; *C. Gent.* ii, c. 52; *Quodl.* ix, a. 6.

[5] So too Bonaventura, II *Sent.* 17, 1, 2, Concl. v. ii, p. 414.

The hylomorphic composition of angels is also supported by tradition. Boethius in *De Trin.* 3 [1] and Avicenna in 2 *Met.* 1 [2] both claim that a recipient cannot receive by means of its form, and Boethius again in the *De Unitate et Uno* [3] writes, 'aliquid est simplicitate esse unum ut deus, aliquid simplicium coniunctione esse unum ut angelus et anima quorum unumquodque est unum coniunctione materiae et formae.' Augustine in *Conf.* xii [4] also holds that all that is mutable involves a certain *informitas* by which it is able to receive forms. Lastly, Averroes in *Super* 12 *Met.*[5] maintains that the cause of potency in things is matter and in *Super* 8 *Phys.*[6] that that which lacks potency is simple—*Quaest.* 6, f. 14ᵛb f. If Boethius in *De Duabus Naturis*, c. 7 [7] and Dionysius in *De Div. Nom.* c. 7 [8] and in *Ang. Hier.* c. 2,[9] who claim that it is of the very nature of incorporeal substances to be free from matter, be cited against the hylomorphic composition of angels, Richard, like Thomas of York, contends that the matter here rejected is corporeal matter [10]—*Sent. ibid.*, p. 51.

As regards the composition of species and differentiae our *Doctor Solidus* expresses the opinion that the angelic species, like all others, is individuated by a 'negatio divisibilitatis salva integritate essentiae' adding, 'angelus non addit differentiam essentialem super speciem nisi inquantum essentiale distinguitur contra illud tantum quod advenit essentiae post primum actuale esse'—ii, d. 3, a. 3, q. 2, p. 57. Again, he writes, 'Substantia angeli est una numero formaliter, non per aliquid reale superadditum essentiae suae, sed per essentiam sub ratione qua indivisibilis integritate sua salva. . . . Indivisibilitas non dicit aliquam rem positivam et sic unitas numeralis ipsius angeli et sua essentia non differunt, nisi ratione eo quod unitas super essentiam non addit nisi indivisibilitatem praedictam'—*ibid.*, a. 4, q. 1, p. 58.

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[1] Cf. p. 93, n. 2.

[2] ii, c. 1, f. 75ʳ.

[3] This work is by Gundissalinus. It was edited by P. Correns, Münster 1891 (*Beiträge* series, Bd. I, cf. p. 9: 14).

[4] *Lib.* xii, c. 19, *P.L.* 32: 836.

[5] xii, S. 1, c. 4, f. 146ʳa.

[6] viii, S. 4, c. 1, f. 193ʳb.

[7] c. 6, *P.L.* 64: 1350.

[8] Cf. p. 105, n. 3.

[9] Cf. p. 105, n. 2.

[10] The propositions condemned by Tempier as denying the hylomorphic composition of the angels are: No. 71—Quod in substantiis separatis nulla est possibilis transmutatio; nec sunt in potentia ad aliquid, quia aeternae et immunes sunt a materia. No. 72—Quod substantiae separatae, quia non habent materiam, per quam prius sint in potentia quam in actu, et sunt a causa eodem modo semper se habente, ideo sunt aeternae. No. 80—Quod omne quod non habet materiam, est aeternum; quia quod non est factum per transmutationem materiae, prius non fuit: ergo est aeternum.

Being individuated in this way, each angel does not constitute a complete species.[1] The contrary assumption rests on the thesis *Deus non potest multiplicare individua sub una specie sine materia*—a thesis that was condemned by Bishop Tempier of Paris,[2] and rightly condemned because it assumed that matter is the principle of individuation—*ibid.*, a. 5, q. 1, p. 60. Undoubtedly, in the corporeal realm nature is not able to manifest the multiplication of individuals in the same species without matter, but in the spiritual realm God *can* accomplish such a multiplication without matter. 'Ad multiplicationem individuorum in eadem specie per naturam non tantummodo est materia necessaria sed etiam materia quantitata, . . . ⟨sed si⟩ angeli non habeant materiam, ut aliqui dicunt, videtur quod ad multiplicationem individuorum in eadem specie per potentiam divinam non est necessaria quantitas neque praesuppositio alicuius materiae quia ipse potest materiam de novo creare . . . ergo sive in angelis sit materia sive non, quamvis nulla sit ibi quantitas, deus potest facere plures in eadem specie'—*Quaest.* 8, f. 19^{r}b. There can be several individual angels in the same species because individuals are so many indivisible determinations of the species—ii, d. 3, a. 5, q. 1, p. 60.

Together with this incommunicability of its species, an angel, like a rational soul, may possess distinguishing natural properties arising from its matter. 'Dicendum quod dato quod omnes angeli sint aequales in essentia, tamen possunt esse inaequales in aliqua proprietate naturali, consequente eos ex parte materiae, dato quod omnes proprietates quae consequuntur eos ex parte formae maneant aequales'—ii, d. 3, a. 5, q. 1, p. 62; *Quaest.* 8, f. 19^{v}a. This inequality applies not only to the natural powers, which vary according to the angelic order, but also to those of the members within an order. 'Non omnes angeli eiusdem ordinis sunt aequipotentes, nec in scientia dirigente, nec in voluntatis perfectione, nec in potentia exequente officium ad quod sunt deputati'—ii, d. 9, a. 2, q. 4, p. 125.

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[1] Richard is no doubt thinking of St. Thomas, but as we have already seen (p. 105, n. 11) the theory was originally proclaimed by Algazel.

[2] This is No. 96. Cf. also No. 81—Quod quia intelligentiae non habent materiam, Deus non posset facere plures eiusdem speciei.

As to the final type of angelic composition, namely that of substance and faculties, what Richard has said previously about the relation of the faculties of the soul to its essence (p. 248 f.) is regarded by him as applying equally to the angel—cf. *Quaest.* 9, f. 20^{v}a. We proceed, then, to the angelic activities apropos of which, Richard, with Pecham and Bonaventura, observes, 'angeli ratione sui esse substantialis actualis sint in aevo, quamvis vicissitudo suarum cogitationum vel affectionum mensura alia creata mensuretur'—ii, d. 2, a. 1, q. 1, p. 36.

As far as their intellection is concerned, much of what has been said about human knowledge is here applicable. Thus apart from any supernatural assistance, the angel, like man, can arrive at (*a*) a knowledge of other creatures, and (*b*) a general knowledge of the *esse* and the *quid est* of God. The angelic knowledge of other creatures including temporal beings, which Richard supports by the assertion of John Damascene (*lib.* 2, c. 4)[1] that neither the angels nor the demons know future events by natural cognition (ii, d. 3, a. 6, q. 2, p. 64; *Quaest.* 12, f. 30^{v}a), is an interesting departure from his predecessors, especially Grosseteste, who maintains that superior beings are not receptive in respect of their inferiors. Richard holds that such a view is true only for a material reception—*Quaest.* 12, f. 22^{v}b: hence he writes, 'Dico quod angeli ab istis inferioribus similitudinem recipiunt intelligibilem non per virtutem istorum inferiorum, nisi instrumentaliter. Quia angelus per suum activum ⟨principium⟩ principaliter et per similitudines istorum inferiorum instrumentaliter educit de potentia sui possibilis speciem intelligibilem per quam de novo habet de re inferiori aliquam cognitionem, et illa est operatio naturalis ad similitudinem qua in nobis est naturalis operatio intellectus agentis'[2]—ii, d. 3, a. 6, q. 2, p. 64; *Quaest.* 12, ff. 30^{r}a, 32^{r}a. This angelic knowledge of creatures, like man's, includes a partial appreciation of their conformity with the Divine exemplars in much the same way as an effect is known through its cause, but the angelic appreciation is clearer than that of man—*Quaest.* 13 (ed. Quar., pp. 234–5).

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[1] *Ibid.*, *P.Gr.* 94: 877.

[2] Cf. Tempier, No. 76—Quod angelus nihil intelligit de novo.

The general knowledge of the Divine *esse* and *quid est*, which the angel possesses, is derived naturally through a consideration of creatures. It is, of necessity, a general and obscure knowledge, for if human knowledge is confined to corporeal things because the rational soul is the form of the body, angelic knowledge is confined to composites of act and potency, because the angel is not pure actuality—*ibid.*, p. 233; *Sent.* iii, d. 14, a. 1, q. 2, p. 129. Besides, the Divine essence could not inform any created intellect *per seipsam*, for a pure act is not able to be a *forma informans*. Lastly, if the object of intellect is *ens*, and God is infinite in entity, He will be infinite in intelligibility, and therefore, beyond the comprehension of a created intellect—*Quaest.* 35, f. 106^{r}b.

Nevertheless, when there is question of supernatural knowledge, the good angel, like the beatified soul, is granted a distinct though limited comprehension of certain of the eternal exemplars. This comprehension must be supernatural, because it is a divine gift following on sanctification and impeccability—qualities acquired by the good angels and not received at creation; and it must be limited because no finite mind can comprehend the Divine essence *totaliter* according to all the modes in which it is imitable—ii, d. 4, a. 2, q. 1 and 2, p. 69 f.; ii, d. 5, a. 2, q. 2, p. 80; ii, d. 11, a. 2, q. 2, ad 2^{m}, p. 139; *Quaest.* 35, f. 106^{r}a.

Up to this point we have been considering the similarity between human knowledge and angelic knowledge. We come now to the dissimilarities, the first instance of which is the intuitive and non-discursive method of intellection, proper to the angel and best manifested in his knowledge of God. 'Quamvis ⟨angeli⟩ Creatorem in lumine naturali per creaturas aliquo modo intellexerint, in generali scilicet et obscure et mediate, ut dictum est, tamen non discurrunt, sunt enim non rationales sed intellectuales'—*ibid.*, p. 233. Being finite, the angel must, indeed, understand conclusions successively, but since he understands each conclusion in its principle *unico intuitu*, he does not understand by ratiocination, as man does—*Quaest.* 7, f. 15^{v}b; *Sent.* ii, d. 16, a. 1, q. 5, p. 209.

The second dissimilarity between the natural knowledge of man and angels lies in the fact that angels possess a determined number of concreated species covering 'universalia omnium rerum naturalium et multa singularia incorruptibilia'[1]—ii, d. 3, a. 6, q. 2, p. 64. This type of knowledge is supported by the author of the *De Causis*, prop. 10,[2] who says that every intelligence is full of forms, and likewise by Augustine, who remarks in *De Trin.* xii, c. 7[3] that temporal things affect the carnal senses of animals and men, and also the angels, but not God—ii, d. 3, a. 6, q. 2, p. 64; *Quaest.* 12, f. 30^{v}a f. Both the concreated species here involved and those acquired are especially fitting for a being who is not pure actuality but requires to understand through something other than himself. Without them, we should have to suppose that a limited finite essence, such as the angel's, could be expressive of all the differences in things[4]—*Sent. ibid.*; *Quaest. ibid.*

There is one thing, however, that the angel does understand through his own essence, and that is himself. 'Angelus aliquem cognoscit per essentiam suam, scilicet se, quia intellectui quem corpus corruptibile non aggravat, similitudo non est necessaria'—ii, d. 3, a. 6, q. 1, p. 62; i, d. 35, a. 1, q. 2, p. 301. This knowledge of his own existence and life, which is the most certain knowledge which the angel has (ii, d. 4, a. 1, q. 2, p. 68), provides a third dissimilarity between his natural knowledge and that of man, for man must advance from a knowledge of objects to acts, from acts to potencies, and from potencies to their subject.

In connexion with will, the second instrument of angelic activity, Richard offers a number of interesting theories. As for its relation to the angelic intellect, what has been said above about the primacy of the human will and its dependency on the human intellect (cf. p. 258 f.) holds equally here. A further question is raised as to whether the angel from the first moment of its creation is free. The question is answered affirmatively, for although the Highest Good is the natural end of the angelic will, it does not exclude deliberation, as is proved by the fall of some of the angels. However, once deliberation over the Highest Good is completed, the angel is free only in a limited sense, e.g.

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[1] Richard allows to the angels, as well as to God, a knowledge of the essence of *materia prima*, but he does not say whether they derive it through an acquired or connate species—cf. ii, d. 12, a. 1, q. 1, ad 4, p. 144.

[2] *Ibid.*, ed. Juntas, f. 116^{r}b.

[3] *Ibid.*, *P.L.* 42: 1004.

[4] Cf. Tempier, No. 85—Quod scientia intelligentiae non differt a substantia eius; ubi enim non est diversitas intellectus ab intelligente, nec diversitas intellectorum.

a *servitute peccati et miseriae*—ii, d. 7, a. 1, q. 2, p. 92; ii, d. 3, a. 8, q. 2, p. 64; *Quaest.* 24, f. 73^{r}a f.

Of the operation of the angelic will in relation to inferior beings we are told that the superior angels, because they see things in God more clearly, illuminate inferior angels and men by disposing their intellects [1]—*Quaest.* 37, f. 112^{v}a f.; *Sent.* ii, d. 10, a. 1, q. 2, p. 122. Since in the case of man, this disposing is done indirectly through the influencing of the senses, Richard does not accept Bacon's opinion that the active intellect may be an angel—ii, d. 10, a. 2, q. 2, p. 130; *Quaest.* 18, f. 52^{v}a f.

The angelic will also produces the particular movements of the celestial bodies and this it does *voluntarie et non naturaliter*—'voluntarie' involving the previous activity of the angelic intellect as well as a natural potency for movement in the heavenly bodies, for otherwise we are left with the condemned article that the angel moves the heavens by his will alone; [2] 'non naturaliter' meaning that the angel does not animate the heavenly bodies, as was asserted in another condemned proposition [3]—ii, d. 14, a. 1, q. 6, p. 172; *ibid.*, a. 3, q. 4, p. 187; *Quaest.* 16, f. 44^{v}a f. As to the angel's relation to place, a question that arises from this theory, Richard agrees with his predecessors that an angel is in place *diffinitive* and not by circumscription, but he insists that, because the angel is a creature, this method of being in place applies to his substance as well as to his operations. Hence he supports Tempier's condemnation [4] of the view that the angels are in the empyrean by their operation alone—*Quaest.* 19, f. 56^{v}a f.; *Sent.* i, d. 37, a. 2, q. 1 and 3, pp. 326, 329; *ibid.*, a. 3, q. 1 and 3, pp. 331, 333.

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[1] Cf. Tempier, No. 82—Quod intelligentiae superiores non sunt causa alicuius novitatis in inferioribus, et quod superiores sunt inferioribus causa aeternae cognitionis. No. 112—Quod intelligentiae superiores imprimunt in inferiores, sicut anima una imprimit in aliam, et etiam in animam sensitivam; et per talem impressionem incantator aliquis proiecit camelum in foveam solo visu.

[2] Cf. Tempier, No. 212. Without Richard's elucidation one might have supposed that the condemned article meant that the angel did not receive his power immediately from God.

[3] Cf. Tempier, No. 102—Quod anima caeli est intelligentia, et orbes caelestes non sunt instrumenta intelligentiarum sed organa, sicut auris et oculus sunt organa virtutis sensitivae. No. 213—Quod natura, quae est principium motus in corporibus caelestibus, est intelligentia movens.—Error, si intelligatur de natura intrinseca, quae est actus vel forma.

[4] Cf. Tempier, No. 204—Quod substantiae separatae sunt alicubi per operationem; et quod non possunt moveri ab extremo in extremum, nec in medium, nisi quia possunt velle operari aut in medio, aut in extremis.—Error, si intelligatur sine operatione substantiam non esse in loco, nec transire de loco ad locum.

Finally, the angelic will co-operates indirectly by means of the celestial movements in the eduction of corruptible terrestrial forms, animate and inanimate [1]—cf. ii, d. 7, a. 4, q. 1, p. 100.

NATURAL THEOLOGY

In considering God as the ultimate Being in the universe Richard agrees with the men whom we have already studied in regarding Him as pure actuality devoid of all creaturely types of composition such as that of essence and existence, of matter and form, of genus and differentiae, and of substance and faculties—*Quaest.* i, f. 2^{v}a; *Sent.* i, d. 8, a. 2, q. 1, p. 85, and a. 4, q. 2, p. 92; i, d. 35, a. 1, q. 7, p. 306; i, d. 43, a. 1, q. 1, p. 380. This actuality and simplicity means that God possesses no two factors one of which can be said to be in the other, and hence, attributes can be ascribed to Him only *per rationem*—i, d. 2, a. 1, q. 3, p. 30; i, d. 36, a. 2, q. 6, p. 318. But this does not mean that our thought of God is without value, for each attribute indicates in the fullness of the Divine perfection something that we intend to signify by such words as wisdom, power, or justice. 'Si aspiciamus ad illud quod per nomen alicuius attributi (verbi gratia, per nomen sapientiae) significare intendimus, illud est divina essentia sub ratione qua illuminata seu illuminatio est [2] divini intellectus, ita quod formalius significat ipsam illuminationem a qua nomen sapientiae imponitur quam essentiam; nomen enim formalius significat illud a quo ad significandum imponitur quam illud ad quod significandum imponitur; ad utrumque tamen significandum imponitur. Si autem inspiciamus ad illud quod nomine sapientiae significamus distincte et in singulari, sic proprie nomen non dicitur de divina essentia nisi negative, et sic forte intelligitur illud verbum Diony. 2 cap. *Ang. Hier.*[1] "Negationes in divinis verae sunt, affirmationes vero incompactae"—i, d. 2, a. 1, q. 2, ad 2^{m}, p. 30.

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[1] Cf. Tempier, No. 30—Quod intelligentiae superiores creant animas rationales sine motu caeli; intelligentiae autem inferiores creant vegetativam et sensitivam motu caeli mediante. No. 73—Quod substantiae separatae per suum intellectum creant res. No. 189—Quod cum intelligentia sit plena formis, imprimit illas formas in materiam per corpora caelestia tamquam per instrumenta. No. 210—Quod materia exterior obedit substantiae spirituali.—Error, si intelligatur simpliciter, et secundum omnem modum transmutationis.

[2] The sense is clearer if this *est* be omitted.

Inasmuch, then, as our concepts correspond to something in the plentitude of the Divine perfections, since to speak of the power of God is not to speak of His justice, they have value; but inasmuch as they represent our inability to express under one concept the totality of the Divine perfections, and inasmuch as attributes are common to God and to creatures only analogically and not univocally, they are not completely valid—i, d. 2, a. 1, q. 3, p. 31; i, d. 8, a. 4, q. 2, p. 93. Such value as they have Richard supports by his theory that the order which we assign to them is not purely arbitrary. Thus he maintains that existence is the chief characteristic of God and that those attributes, which relate to Him inasmuch as He is an essence, are prior to those which relate to Him inasmuch as He is life, while among the first type unity is prior to simplicity, and among the second goodness is prior to mercy, mercy to justice, and intellect to will—i, d. 2, a. 1, q. 4, p. 32; i, d. 23, a. 1, q. 6, p. 208. 'Dicendum quod quamvis istis ordinatis conceptionibus non respondeat aliquis ordo realis in perfectionibus divinae essentiae, tamen ipsae perfectiones sunt talis naturae quod aptiores sunt secundum unum ordinem intelligendi quam secundum alium'—i, d. 2, a. 1, q. 4, ad 2^{m}, p. 33.

This anti-nominalistic tendency in Richard's view of the relation of the Divine attributes to the Divine Essence is supported by his Trinitarian speculations. Certainly, the Persons are not merely logically distinct from the Divine Essence, for it is of faith that between the Persons themselves there is a real distinction; on the other hand, they are not really distinct from the Essence because that Essence is simple. Some distinction intermediate to these two must be devised, then, and one that will be less of a logical distinction than that used to interpret the relation between the attributes and the Essence. 'Dico quod quaelibet persona comparata ad divinam essentiam realiter idem est cum ea, aliter enim esset in divinis realis compositio, quod impossibile est.[2] Differt tamen persona ab essentia secundum rationem, non sicut dicimus attributa secundum rationem differre, sed per differentem modum se habendi, quia in modo se habendi ad alteram differunt secundum affirmationem et negationem quia persona se habet ad alium, essentia vero non, et essentia se habet absolute, persona vero non, . . . in essentia dicit aliquam rem non realiter ab essentia differentem, sed secundum rationem fundatam super diversum modum se habendi'—i, d. 34, a. 1, q. 1 and 2, p. 294.

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[1] Cf. *Opera*, Argentina 1502, f. 20^{v}.

[2] Cf. Tempier, No. 1—Quod Deus non est trinus et unus, quoniam trinitas

Hence, for Richard, the simplicity of the Divine Essence is preserved since, contrary to the condemned opinion of Abbot Joachim which asserted that the Essence is generated and communicated,[1] it is the same Essence which exists under different modes of being in the Father, in the Son, and in the Holy Ghost. Secondly, the multiplicity of the Divine Persons is preserved, because a mode of being is a relation, and a relation has some entity that provides our basis for regarding the Persons as *supposita*[2]—cf. *Quaest.* 9, f. 21^{v}a; *Sent.* i, d. 26, a. 1, q. 1, p. 236. Thus Richard (like St. Thomas)[3] concludes that the relation in God, when compared to its term, implies something other than its foundation, while when compared to its subject it is the same as its foundation—*Quodl.* i, q. 9, f. 14^{b}.

I turn now to a consideration of the Divine activity as it involves knowing and willing. Ignoring these activities as respectively operating in the generation of the Son and the procession of the Holy Spirit, let us consider them from the point of view of Natural Theology.

In treating of Divine cognition Richard closely follows his Franciscan forerunners, especially Thomas of York. God knows His own Essence primarily—a most natural thing seeing that He neither understands through an organ nor perfects matter,

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non stat cum summa simplicitate. Ubi enim est pluritas realis, ibi necessario est additio et compositio. Exemplum de acervo lapidum. Cf. *ibid.*, No. 2.

[1] This was condemned by the fourth Lateran Council, 1215.

[2] I omit his discussion of the manner in which the Persons are distinguished from each other because it is not a question arising immediately out of the Divine simplicity. Briefly, Richard's view is that they are distinguished 'in re personali et notionali . . . ⟨quia⟩ persona dicit rem distinctam et per se subsistentem, et notio dicit quasi formalem distinctionis rationem'—i, d. 9, a. 1, q. 2, p. 98. The *notiones* are five—'innascibilitas et paternitas in patre, et spiratio activa in patre et filio, et filiatio in filio, et processio sive spiratio passiva in spiritu sancto'—i, d. 26, a. 4, q. 2, p. 242.

[3] Cf. *S. Theol.* i, q. 39, a. 1.

both of which would hinder reflection. Created beings He knows secondarily inasmuch as His Essence is imitable by creatures and not inasmuch as they are understood *per aliquid extra se*—i, d. 35, a. 1, q. 2, p. 301; i, d. 2, a. 1, q. 3, p. 32; *Quaest.* 10, f. 24^{v}a. Therefore, the opinion of Aristotle that a thing is known when its causes are known applies particularly to the Divine knowledge of creatures, for God knows Himself as the efficient, final, and exemplary cause of all that is—i, d. 36, a. 1, q. 1, p. 309. His knowledge causes things without being caused by them, and were it not the cause of things, the concept of creature would be implied in the Divine nature and the world created of necessity. 'Quamvis creaturae ab aeterno non fuerunt aliud a Deo in aliquo reali esse, tamen fuerunt aliud a Deo in esse praesentato, et possibile erat eas fieri extempore aliud a Deo in reali esse. Unde pro tanto dicitur Deus ab aeterno intellexisse aliud a se, quia ab aeterno vidit essentiam suam ut diversimode imitabiliter a rebus quae quando haberent reale esse, realiter essent aliud a se'—i, d. 35, a. 1, q. 4, p. 303.

Because God knows His essence as imitable by diverse creatures He may be said, without any detriment to His simplicity, to have a plurality of ideas, the plurality extending to every individual creature, actual and possible,[1] because all are made by Him—i, d. 2, a. 1, q. 3, ad 1, p. 32; i, d. 36, a. 2, q. 3, p. 314; *Quaest.* 1, f. 2^{v}b. This knowledge of individuals is likewise borne out by the revealed doctrine that God rewards and punishes individuals for individual acts—i, d. 36, a. 1, q. 1, p. 309; *Quodl.* i, a. 1, q. 1, p. 1; and may be supported by the argument that if we know individuals, God Who is free from the conditions vitiating our knowledge must also know individuals. The Divine knowledge of individuals, however, differs from ours not only in that it is not caused by them and therefore not enriched by them, but also in that it does not involve an application of a universal to the particular, since in one simple act, God intues all the singulars of a definite species—i, d. 36, a. 2, q. 4, ad 7, p. 316. As to the possibility of God knowing evil individuals, Richard maintains that although He cannot know such individuals directly, because He only knows creatures that imitate Himself, He is not entirely ignorant of them. 'Si Deus non cognoscat mala approbando, certissima tamen novit ea intuendo'[1]—i, d. 36, a. 1, q. 2, p. 310, and q. 4, p. 315.

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[1] For Richard's view of the Divine fore-knowledge cf. E. Hocedez, *op. cit.*, p. 240 f.

It is in virtue of God's knowledge of creatures that Richard ascribes to Him a practical as well as a speculative intellect.[2] 'Declarandum est in Deo esse aliquo modo intellectum practicum. Divinus enim intellectus intelligit creaturas producibiles ab eo, ut eas in actu producat, quamvis productio ipsarum creaturarum sit propter Deum sicut propter finem.'—*Quodl.* ii, a. 1, q. 1, p. 33. This brings us to the question of the Divine will as involved in creation.

With all Scholastics Richard asserts that pure generosity alone led God to produce the world out of nothing, for any moving influence would imply a need in His nature[3]—i, d. 45, a. 2, q. 4, p. 404; ii, d. 1, a. 5, q. 1, p. 24. It is, then, to the Divine Will primarily that creation is due. 'Non enim quia divinus intellectus dixit rectum esse creari, ideo voluntas imperavit ut mundus crearetur, sed quia voluntas voluit creationem mundi futuram, ideo divinus intellectus dictabat rectum esse ut mundus crearetur; ita quod dictamen intellectus non determinavit intellectum ad hoc dictandum'—i, d. 35, a. 1, q. 5, p. 304. Again, 'Voluntas enim movet, sapientia disponit, potentia explicat:[4] haec sunt aeterna fundamenta causarum omnium et principium primum. Quia tamen scientia et potentia se habent indeterminate ad multa, et voluntas est quae determinat potentiam ad exequendum determinate hoc vel illud, ideo productio machinae mundialis magis attribuitur voluntati, sicut causae, quam scientiae vel potentiae' [1]—ii, d. 1, a. 3, q. 3, p. 16.

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[1] The errors condemned by Tempier regarding the Divine cognition are: No. 3—Quod Deus non cognoscit alia a se. No. 42—Quod causa prima non habet scientiam futurorum contingentium. Primo ratio, quia futura contingentia sunt non entia. Secunda, quia futura contingentia sunt particularia; Deus autem cognoscit virtute intellectiva quae non potest particulare cognoscere. Unde, si non esset sensus, forte intellectus non distingueret inter Socratem et Platonem, licet distingueret inter hominem et asinum. Tertia est ordo causae ad causatum; praescientia enim divina est causa necessaria praescitorum. Quarta est ordo scientiae ad scitum; quamvis enim scientia non sit causa sciti, ex quo tamen scitur, determinatur ad alteram partem contradictionis; et hoc multo magis in scientia divina quam nostra. No. 149—Quod alius est intellectus in ratione secundum quod Deus intelligit se et alia.—Error, quia licet sit alia ratio intelligendi, non tamen alius intellectus secundum rationem.

[2] For the emphasis that had been given to this question by Henry of Ghent, who denied a practical intellect in God, cf. Hocedez, *op. cit.*, p. 408.

[3] Cf. Tempier, No. 53—Quod Deum necesse est facere quidquid immediate fit ab ipso.—Error, si intelligatur de necessitate coactionis, quia tollit libertatem, sive de necessitate immutabilitatis, quia ponit impotentiam aliter faciendi. No. 59—Quod Deus est causa necessaria motus corporum superiorem et coniunctionis et divisionis contingentis in stellis.

[4] Cf. Hugh of St. Victor, *De Sacr.* i, p. 2, c. 6, *P.L.* 176: 208.

In actualizing these exemplars does the Divine will pass from potency to act? Richard thinks not, for God is a perfectly actual and simple being. Before actualization, creatures in their potential existence were neither merely logically distinct from God (for the conception of creatures is not implied in the Divine nature) nor really distinct (because this would imply their actual existence from eternity): they were distinguished in an intermediate way not purely 'secundum rationem, quamvis magis debeat dici secundum rationem quam secundum rem'—*Quodl.* i, a. 1, q. 7, p. 11. After actualization, creatures become really distinct from God, the change occurring only in the minor term of the relation, just as in the relation of paternity the change applies only to the offspring, no positive difference being implied in the father—*Quodl.* i, q. 9, p. 14. Consequently, the Divine will as one of the terms of relation can remain unaltered, while the creature, as the other term, changes—i, d. 30, a. 1, q. 4, p. 269.

The problem may be approached in another way by attending to the active potency in God, for—'cum agere conveniat alicui secundum quod est ens actu, ut vult Philos. 3 *Physic.*,[2] ideo potentia activa non repugnat puro actui: et ideo non obstante quod Deus sit purus actus, immo concordante, in Deo est potentia activa qua potest transmutare alia a se: sed quia transmutari convenit rei in quantum est possibilis secundum sententiam Philos. 3 *Physic.*[3] qui vult quod nihil movetur nisi inquantum est possible et in Deo nulla est possibilitas, cum sit purus actus, ideo in ipso nulla est potentia passiva respectu alterius a se'—i, d. 42, a. 1, q. 1, p. 373.

Thinking of the action of this active potency or 'principium transmutandi aliud' (i, d. 42, a. 1, q. 1, p. 372), Richard writes later, 'Dicendum quod actio interior in Deo aeterna est, et per illam producit creaturam in tempore. Unde nullo modo exivit de potentia in actu⟨m⟩, quantum ad operationem interiorem. Et ideo quamvis ipsa exterior operatio de novo facta fuerit a Deo, nulla tamen novitas propter hoc facta est circa Deum, nec propter hoc proprie loquendo potest dici Deus exivisse de potentia in actum. Sed ipsa exterior operatio ante in Dei potestate existens, postea in actum a Deo producta est'—ii, d. 1, a. 3, q. 4, ad 7, p. 19; *Quaest.* 4, f. 10^{v}b. Hence Richard is led to say that creation and conservation *ex parte Dei* are really the same, because each is a Divine action which is God; but *secundum rationem* they differ, 'quia alia est relatio creaturae ad Deum sub ratione qua est essendi dator et alia sub ratione qua est dati esse conservator'— ii, d. 1, a. 2, q. 1, p. 9. These speculations he attempts to reconcile with the account of creation in *Genesis* by saying, 'Dicendum quod Deus dicitur requievisse die 7. quia cessavit a creando novas species rerum, non quia cessavit ab agendo universaliter, non enim cessavit ab actione quae est conservatio nec a gubernando creata'[1]—ii, d. 1, a. 2, q. 3, ad 1^m, p. 12; *Quaest.* 4, f. 9^{v}a.

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[1] The condemned errors bearing on the effects of creation are: No. 34—Quod prima causa non potest plures mundos facere. No. 38—Quod Deus non potuit fecisse primam materiam, nisi mediante corpore caelesti. No. 44—Quod ab uno primo agente non potest esse multitudo effectuum. No. 55—Quod primum non potest aliud a se producere; quia omnis differentia, quae est inter agens et factum, est per materiam.

[2] iii, S. 2, c. 6, f. 44^{r}b.

[3] *Ibid.*

On the vexed question of the possibility of God's creation of the world from eternity, it is natural that Richard, in face of the 1277 condemnation,[2] should follow the opinion of his Order and

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[1] The errors bearing on the activity involved in creation are: No. 39—Quod a voluntate antiqua non potest novum procedere absque transmutatione praecedente. No. 48—Quod Deus non potest esse causa novi facti nec potest aliquid de novo producere. No. 51—Quod Deus est aeternus in agendo et movendo, sicut in essendo; aliter ab alio determinaretur, quod esset prius illo. No. 52—Quod id, quod de se determinatur, ut Deus, vel semper agit, vel numquam; et quod multa sunt aeterna. No. 68—Quod potentia activa quae potest esse sine operatione, est potentiae passivae permixta.—Error, si intelligatur de quacumque operatione.

[2] The chief condemned errors were: No. 87—Quod mundus est aeternus, quantum ad omnes species in eo contentas; et, quod tempus est aeternum, et motus, et materia, et agens, et suscipiens; et quia est a potentia Dei infinita, et impossibile est innovationem esse in effectu sine innovatione in causa. No. 89—Quod impossibile est solvere rationes Philosophi de aeternitate mundi, nisi dicamus quod voluntas primi implicat incompossibilia. No. 90—Quod naturalis philosophus debet negare simpliciter mundi novitatem, quia innititur causis naturalibus, et rationibus naturalibus. Fidelis autem potest negare mundi aeternitatem, quia innititur causis supernaturalibus. No. 99—Quod mundus, licet sit factus de nihilo, non tamen est factus de novo, et quamvis de non esse exierit in esse, tamen non esse non praecessit esse duratione, sed natura tantum. No. 184—Quod creatio non est possibilis, quamvis contrarium tenendum sit secundum fidem.

These condemnations seem to be aimed at St. Thomas, who had written, deny such a possibility. He does so on the following grounds: Creation means the reception of new being produced out of *non ens simpliciter*, and obviously, since such being is received from another, that which is produced cannot be the same in number as the producer. Besides, such a newness of being is repugnant to eternal duration. Granted that a thing was produced, it must in some instant have begun to be, and therefore, creation cannot be eternal. Again, creation implies a free act on the part of God, but if the world was created from eternity, God could not have done otherwise than create it. Lastly, an eternal creation would imply an infinite number both of celestial revolutions and of souls. But even God is not able to produce an actual infinity [1]—*Quaest.* 4, ff. 8^{r}a–9^{r}a; *Sent.* i, d. 43, a. 1, q. 4, p. 382. These arguments may also be supported by the authority of John Damascene, who in *lib.* 1, c. 4 [2] says, 'Creatio est Dei voluntate opus existens, non coaeterna est cum Deo'—ii, d. 1, a. 3, q. 4, p. 17; *Quaest.* 4, f. 7^{v}b.

'Mundum non semper fuisse, sola fide tenetur, et demonstrative probari non potest'—*S. Theol.* i, q. 46, a. 2; *Sent.* ii, d. 1, q. 1, a. 5, sol; *Opusc. De aeternitate mundi*; *Quodl.* iii, q. 14, a. 31, xii, q. 6, a. 7: but they would likewise apply to the contemporary Latin Averroists. It should be also remembered that the possibility of an eternal creation had been held by Christians even in Grosseteste's day (cf. p. 43).

[1] Cf. Tempier, No. 9—Quod non fuit primus homo, nec erit ultimus, immo semper fuit et semper erit generatio hominis ex homine. No. 26—Quod prima causa posset producere effectum sibi aequalem, nisi temperaret potentiam suam. No. 101—Quod infinitae praecesserunt revolutiones coeli, quas non fuit impossibile comprehendi a causa prima, sed ab intellectu creato.

[2] *De Fid. Orth.* i, c. 8, *P.Gr.* 94: 814.

DUNS SCOTUS

DUNS SCOTUS

JOHN DUNS, the famous *Doctor Subtilis*, was born in 1266 at Maxton in the County of Roxburgh. Brought up in the school of Haddington, he was sent in 1277 to the Franciscan convent at Dumfries, where some four years later he became a Franciscan.[1] Before 1290, he went to Oxford, and on 17 March 1291 he was ordained priest at Northampton.[2] Between that date and 1300, when he began to lecture at Oxford on the *Sentences*, he had spent some four years in Paris. By the end of 1302 he was again in Paris, where he began a new set of lectures on the *Sentences*. In the following year he was banished for opposing the antipapal policy of Philip IV.[3] Scotus returned to Paris in 1304, and during the next year received the Master's licence.[4] In 1307 he was sent to Cologne, where he died on 8 November 1308.

SCOTUS'S RELATION TO HIS CONTEMPORARIES

There can be little doubt that Scotus aimed at selecting the most valuable doctrines of the Franciscan School, and, by considering them in the light of the theories of those outside that

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[1] Cf. E. Longpré, 'Nouveaux documents d'Écosse' in *Arch. Fran. Hist.*, 1929, p. 588. Previously to Longpré's discovery of these important documents, Professor Little, in 'The Franciscan School at Oxford' in *Arch. Fran. Hist.*, 1926, pp. 869 f., had exploded the traditional arguments for the Irish origin of Scotus. Like Johannes Major, however, he argued that 'Duns' was a place-name. Major (1469/70–1550) says, 'John Duns . . . was a Scottish Briton for he was born at Duns, a village eight miles distant from England. . . . When no more than a boy . . . he was taken by two Scottish Minorite friars to Oxford, where . . . he made his profession in the religion of the Blessed Francis. At Oxford, he made such progress that he left behind him . . . a monumental work upon the *Metaphysics* and the four books of the *Sentences*. These writings of his are commonly called the English or the Oxford work. When he was afterwards summoned by the Minorites of Paris to that city, he produced there another set of lectures on the *Sentences*, more compendious than the first edition and at the same time more useful. . . . He went to Cologne and there died while still a young man.'—*Historia Maioris Britanniae* (Eng. trans. in *Scottish Historical Society Publications*, 1892, vol. 10, p. 206).

By a curious blunder Dr. Harris in his *Duns Scotus*, Oxford 1927, vol. i, p. 5 makes Major claim Duns as English. The same writer (*ibid.*, p. 4) quotes Eccleston as deciding that Scotus was probably a Scotsman! Eccleston's chronicle, of course, ends 1258/9 and does not even mention Scotus.

[2] Cf. E. Longpré, 'L'ordination sacerdotale du J. Duns Scot' in *Arch. Fran. Hist.*, 1929, pp. 54 f.

[3] Cf. E. Longpré, 'Le B. Jean Duns Scot: Pour le Saint Siège et contre le Gallicanisme' in *La France Franciscaine*, 1928, pp. 137 f.

[4] A. G. Little, *loc. cit.*

School, to transform them by his own personal colouring. That transformation, however, was cut short by his early death. Of the members of his own School, he cites Lincolniensis (*translatio* of John Damascene and of Dionysius—*Ox.* iii, d. 21, n. 4; *Ox.* ii, d. 3, q. 10, n. 21; Commentaries on the *Ethics* and on the *Post. An.*—*Ox.* iii, d. 3, q. 8, n. 13; the *Hexaemeron*—*Ox. Prol.* q. 3, *lat.* n. 16; and the *Computus*—*R.P.* ii, d. 14, q. 2, n. 6), Alexander of Hales (*Ox.* i, d. 5, q. 1, n. 11 and *R.P.* i, d. 5, q. 1, n. 7), Bonaventura (*R.P.* i, d. 27, q. 1, n. 10, *ibid.*, d. 33, q. 1, n. 14, and d. 36, q. 4, n. 26), and William de Mara (*Quaest. Met.* v, q. 10, n. 2 and 4).[1] It is undoubtedly to the first of these that we must trace the strong scientific and mathematical bent that appears in the *De Primo Prin.*, in *Ox.* ii, d. 2, q. 9, n. 9 f. and in *R.P.* ii, d. 13 and 14, qq. 1–3 and the regard for experience which is manifested in his hesitation in accepting what others adopt as proofs. To Alexander and Bonaventura Scotus might be said to owe his conception of theology as a practical science and his voluntaristic leanings.

Of the unnamed members of his Order who may have influenced him Thomas of York, Bacon, Pecham, Richard of Middleton, and William of Ware naturally suggest themselves. As for the first, apart from the resemblances that we shall have occasion to note in the following pages, his main influence seems to lie in his propagation of a veneration of Aristotle and the Arabians, especially Avicenna. Bacon was certainly alive when Scotus was at Oxford, but whether his mediocre philosophical system made any impression on the Subtle Doctor is difficult to ascertain. Besides, it must be remembered that Bacon had been under suspicion for some fifteen years. Dr. Harris, while acknowledging that 'the influence of Bacon on Duns Scotus is a very difficult question to determine', finds in both the theory of the primacy of the will over the intellect, the acceptance of the hylomorphic composition of spiritual beings, the logical unity of *materia prima*, a moderate realism, and a similar theory of individuation and of the direct knowledge of singulars.[2] As to the primacy of the will, it may be said briefly that Bacon's theory is quite different, since, for him, the faculties of the soul are not distinct from its essence (cf. p. 165). Regarding the doctrine of the hylomorphic composition of spiritual beings, we shall see later that this was not accepted by Scotus in his genuine works; it is found only in the spurious *De Rerum Principio*. The third and fourth similarities which Dr. Harris finds are also in Thomas of York. The fifth similarity in respect of the theory of individuation is too far-fetched, for Bacon never conceives of a thisness standing in relation to the universal nature as act to potency (cf. p. 381). It remains, then, that the similarity between Bacon and Scotus rests chiefly on their common view of our direct knowledge of singulars and upon such other minor theories as will be noted in the following pages.

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[1] The printed text has 'Gulielmus de Varro', but Fr. Longpré has noted that the manuscripts read 'Frater W‹ilhermus› de Mara'—cf. 'Guillaume de Ware' in *La France Franciscaine*, Jan. 1922.

[2] *Op. cit.*, vol. i, p. 121 f.

The influence of Pecham and of Richard on Scotus is best seen in his theory of the plurality of forms. In addition to this, Richard may have fostered his Aristotelian tendencies, for both deny the doctrines of the *rationes seminales* and of Divine illumination. As for William of Ware, the master of Scotus,[1] Fr. Longpré[2] finds a marked resemblance in their theological doctrines and in their views on the distinction between the soul and its faculties. To these might be added their love of Grosseteste,[3] their opposition to Henry of Ghent, and their common Aristotelianism.[4]

Outside his own Order, the chief men who indirectly moulded the thought of Scotus were St. Thomas, Henry of Ghent, and Geoffrey of Fontaines. As far as St. Thomas is concerned, the subtle doctor naturally takes up the defence of the old system already begun by Bonaventura, Matthew of Aquasparta, and Pecham against the Thomistic innovations—a defence that will be evident from the subsequent pages. Nevertheless, as Fr. Longpré has pointed out,[5] many theories of the Subtle Doctor that are commonly supposed to be directed against St. Thomas really apply to Henry of Ghent; thus his

[1] This tradition is well supported by early evidence, cf. A. G. Little, 'The Franciscan School at Oxford', in *Arch. Fran. Hist.*, 1926, p. 867.

[2] *La Philosophie du B. Duns Scot*, Paris 1924, pp. 232, 26.

[3] Cf. Longpré, 'Guillaume de Ware' in *La France Fran.*, Jan. 1922.

[4] Cf. A. Daniels, *W. von Ware über das menschliche Erkennen*, Münster 1913 (*Beiträge* series, Supp. Bd., p. 309) and 'Zu den Beziehungen zwischen W. v. Ware u. J. D. Scotus, in *Franz. Stud.*, 1917, p. 221.

[5] *La Philosophie du B. Duns Scot*, p. 280 f.

theology of the Trinity, his theory of the formal distinction in God, his doctrines of the univocacy of being, and of the importance of the *species intelligibilis*, and of the activity of the object in cognition all presuppose a knowledge of the philosophy of Henry. Finally, his voluntaristic leanings are a protest against the over-emphasis on the passivity of the will made by Geoffrey of Fontaines.

THE HISTORICAL IMPORTANCE OF SCOTUS

The genius of Scotus, the greatest thinker that ever wore the Franciscan habit, was recognized even in his own day, for we find Gonsalvo, the minister general of the Order, writing of his 'admirable knowledge, his most subtle genius . . . and his reputation which has everywhere been noised abroad'.[1] Again, Occam, his successor at Oxford, though constantly criticizing him, refers to him as 'Doctor Ordinis', and Thomas of Sutton, O.P. considered him important enough to warrant a work, *Contra Ioannem Scotum*.[2] This prestige seems to have continued, for it is well known that in the sixteenth century Thomas Cromwell attacked him as the great defender of Scholasticism and ordered that the Holy Scriptures should be explained literally and not according to Scotus.

Likewise, on the continent, his system, stimulated by the zeal of Cavellus and of Wadding, was of great significance. Indeed, in 1651, the Cistercian John Caramuel in his *Theol. fundament. lib. II. disp. 10* wrote, 'Scoti schola numerosior est aliis simul sumptis'; and his contemporary, Frederick Stumel in *Tractatus 2 de distinctione formali*, controv 1. q. 1 asserted, 'Schola Scoti, sive professorum numerum sive qualitatem spectes, nulli secunda.' [3]

Then came the decline of Scholasticism, but with its revival towards the end of the nineteenth century the system of Scotus became a field of interest, although unfortunately it was mainly an interest which saw in Scotism only an unfavourable contrast to Thomism. Writers so obsessed with the supremacy of the latter system that they could allow only a superficial and distracted reading of the Subtle Doctor did not hesitate to accuse him of pantheism, scepticism, Nestorianism, Pelagianism, indeterminism, excessive realism, subjectivism, modernism, destructive criticism, and a host of other imaginable iniquities. Naturally, these accusations found their way into the majority of histories of philosophy and served to prejudice the minds of many, even seminarists, who in the light of ecclesiastical documents[1] ought to have known better. As most of these accusations are commented on in the following exposition, I wish to make only two observations here: (*a*) there is no reason why the critical activity of Scotus should be suspected; it serves to bring out the richness and variety of medieval thought, and moreover, as P. Raymond remarks, 'Critiques, tous les scolastiques ne l'ont-ils pas été à des degrés différents? La critique n'est-elle pas un caractère particulier de leur méthode? Depuis Alexandre de Halès, les commentateurs du Lombard, les Summistes eux-mêmes font une large part à la critique des opinions opposées à celle qui leur paraît la plus rationelle et la mieux fondée; [2] and (*b*) the most important differences between Scotus and St. Thomas, if we except the views of the latter condemned by Bishop Tempier in 1277, concern purely speculative problems.

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[1] The letter is given in Little, *Grey Friars in Oxford*, Oxford 1892, p. 220.

[2] Cf. F. Pelster, 'Thomas v. Sutton O. Pr., ein Oxforder Verteidiger der thomistischen Lehre' in *Zeitsch. f. Kath. Theol.*, 1922, p. 223 f.

[3] Both quoted by Caylus, 'Merveilleux épanouissements de l'École Scotiste' in *Études Franc.*, 1910, p. 6.

Once our prejudices are dispelled and we apply ourselves to the sifting of the grain of subtlety from chaff (a process necessary for all philosophical writings), we shall find in Scotus a most keen intellect offering profound criticism and yet, at the same time, making a great positive contribution to the problems of philosophy. The most necessary equipment for an interpretation of Scotus is a sympathetic approach, patience, and on the occasions when he seems purposely to complicate things, the remembrance that 'nunquam pluralitas ponenda est sine necessitate' was one of his fundamental tenets.[3]

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[1] A brief account of the ecclesiastical approbation of Scotus is given in Longpré, *op. cit.*, p. 13 f. In addition to this, it should be remembered that (*a*) in 1610 the Congregation of the Inquisition by order of Pope Paul V decreed that 'Quidquid Scoti esse constaret, intactum inviolatumque preserveret' and also that ecclesiastical censors should not prevent the printing of anything 'quod certo constaret ex Scoto depromptum esse' and (*b*) that an intensive study of Scholastics other than St. Thomas is not incompatible with the encyclical of Leo XIII.

[2] 'La Philosophie critique de Duns Scot et la Criticisme de Kant' in *Études Fran.*, 1909, p. 544.

[3] Cf. Longpré, *op. cit.*, p. 64.

THE WORKS OF SCOTUS

Since there is almost as much uncertainty about the genuineness of the works ascribed to Scotus as there is about the events of his life, I have thought it best to confine my exposition to the works that are beyond question. These are the *Quaestiones in Metaphysicam*, the *De Primo Principio*, the *Opus Oxoniense*, the *Reportata Parisiensia*, and a *Quodlibet*, all of which are mentioned by John of Reading, a personal friend of Scotus, in his *Comm. on the Sentences* (MS. *Conv. Sopp.* D 495 in Bibl. Naz. of Florence).[1] And even of these, following the general opinion of the best authorities, I have rejected the last two books of the *Quaest. Met.* and Bk. iii, d. 18–d. 35 of the *Rep. Paris.*

Besides these genuine works, all first-rate authorities [2] agree that of the others appearing in Wadding's edition, the following are undoubtedly spurious—the *Commentaries* on the *Physics* and on the *Meteorologica*, the exposition of the *Metaphysics*, the *Grammatica Speculativa*, the *Theoremata*, and the *De Rerum Principio*. On what grounds is the last-named work rejected? We raise the question partly because its acceptance would have altered very substantially our exposition of the philosophy of Scotus and partly because it has been adopted in two recent books on Scotus, namely B. Landry, *Duns Scot* (Paris 1922) and C. Harris, *Duns Scotus* (2 vols., Oxford 1927). The grounds for rejecting it are well summarized by Longpré; [3] they are:

(*a*) Its Augustinian colouring stands out against the marked Aristotelianism of Scotus, and its teaching contradicts that of the undoubtedly genuine works. Thus, among other things, it allows three types of primary matter, the *rationes seminales* theory, matter as the principle of individuation, a real distinction between essence and existence, the hylomorphic composition of spiritual beings, a distinction *secundum respectum ad operandum* between the soul and its faculties, the soul's immediate knowledge of itself, a logical distinction between the Divine essence and its attributes, and the necessity of the Divine ideas based on the necessity of the Divine essence.

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[1] Fr. Longpré was the first to discover the contents of this manuscript. Cf. his *La Philosophie du B. Duns Scot*, p. 111.

[2] Cf. Longpré, *op, cit.*, p. 15 f.; P. Minges, 'Die Skotistische Literatur des XX. Jahrhunderts' in *Franz. Stud.*, 1917, p. 49 f.; 'Duns Scotus über die Univokation des Seinsbegriffes' in *Phil. Jahrb.*, 1907; *Ist Duns Scotus Indeterminist?* Münster 1905 (*Beiträge* series, Bd. V, p. ix); F. Pelster, 'Handschriftliches zu Skotus mit neuen Angaben über sein Leben' in *Franz. Stud.*, 1923; A. Pelzer, *Le premier livre des Rep. Paris. de J. D. Scot* in vol. v des *Annales de l'Instit. Super. de Phil.*, Louvain 1923, vol. 5, p. 448; P. Duhem, 'Les Meteorologicorum Libri quatuor faussement attribués à Jean Duns Scot' in *Arch. Fran. Hist.* 1910, p. 626; M. Grabmann, 'Die Entwicklung der mittelalterlichen Sprachlogik' in *Phil Jahrb.* 1922, p. 132; H. Klein, *Der Gottesbegriff des Duns Skotus*, Paderborn 1915, pp. ix, xxvii.

[3] *Op. cit.*, pp. 22 f., 288 f.

(*b*) The writer seems to be a personal adversary of Olivi whose doctrines he gives almost *verbatim* from the *Quaestiones*. Scotus does not exhibit this intimate knowledge of Olivi.

(*c*) The only known manuscript of the work attributing it to Scotus is codex 15 of the College of St. Isidore in Rome. This dates from the end of the fourteenth century or the beginning of the fifteenth, but the actual ascription is not earlier than the middle of the fifteenth century.

(*d*) It is not mentioned among other works of Scotus named by his contemporary, John of Reading, or by his immediate successors, such as Occam.

Dr. Harris in defending his extensive utilization of the *De Rerum Principio* notes (*c*) and (*d*), but concentrates on (*a*).[1] He argues that the Augustinian colouring is just what one would expect in an early work of Scotus composed while he was under the influence of the Oxford school. But against this I would urge firstly, that the Oxford school was not markedly Augustinian (this is clear from what we have said about Thomas of York), and secondly, that the other early works of Scotus, e. g. the *Quaest. Met.* and the *De Primo Prin.*, are not Augustinian but Aristotelian in doctrine.

Again, Dr. Harris attempts to reconcile some of the contradictions noted above. He admits that the theories of prime matter and of the hylomorphic composition of spiritual beings in the *De Rer. Prin.* 'differ considerably' from those of the *Op. Oxon.*, but he writes 'Such a discrepancy . . . is not unintelligible if we assume a development of Scotus's thought from the traditional Augustinianism which was current at Oxford in his early days to the purer Aristotelianism which was fashionable at Paris'. As regards the principle of individuation, he contents himself with pointing out that the *Quaest. Met.* has still a third theory, namely, that form is the principle of individuation.[2] The contradictions in the theories of the *rationes*

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[1] *Op. cit.*, v. 1, pp. 364 f.

[2] On this, see p. 304, n. 2.

seminales and of the self-knowledge of the soul he does not attempt to reconcile, and that concerning the necessity of the Divine ideas he regards as 'largely verbal'. As for the remaining contradictions, Dr. Harris assumes that the formal distinction of the *Op. Oxon.* is a later development in Scotus. But this is impossible for the simple reason that the formal distinction is found in the early *Quaest. Met.* (cf. iv, q. 11, n. 24 and vii, q. 19, n. 8). Against the whole of Dr. Harris's defence of his use of the *De Rerum Principio,* it can only be urged that no one would wish to deny the possibility of development in an individual's speculations, but that the above doctrines are not developments but contradictions, and extremely important ones to any one who realizes the significance of these doctrines in the history of Franciscan thought. It must be concluded, then, that there is absolutely no basis for attributing the *De Rerum Principio* to Scotus.

THE THEORY OF BECOMING

Scotus follows his predecessors in identifying matter with potentiality and form with actuality, but in considering a particular instance of becoming, he realizes that form, as well as matter, must possess potentiality. Thus, in the case of a surface that has become white, the surface as matter had a potentiality to be made white and the whiteness as form had a potentiality to be applied to that surface when it was yet not white. The potentiality of matter is *potentia subiectiva* and that of form *potentia obiectiva.* 'Aliquid dicitur esse in potentia sicut terminus potentiae et ad illud est potentia. Aliud vero dicitur esse in potentia sicut subiectum potentiae et imperfectum est in potentia ad aliud, ita quod in se est aliquod ens natum suscipere perfectionem et actum ab alio. Prima potentia vocatur obiectiva, secunda dicitur subiectiva; nam alio modo superficies est in potentia ad albedinem et alio modo albedo est in potentia antequam sit. Et aliquando istae duae potentiae non sunt realiter diversae, quia respectu agentis naturalis numquam est potentia obiectiva nisi fundata in potentia subiectiva, quia nihil potest fieri ab agente naturali nisi de potentia subiectiva; sed possibile est potentiam objectivam esse sine subiectiva, sicut patet in creatione, ubi tantum est potentia obedientalis'—*R.P.* ii, d. 12, q. 1, n. 11; *Ox.* ii, d. 12, q. 1, n. 10; *Met.* vii, q. 5, n. 3.

In other passages Scotus seems to identify these two kinds of potency with passive and active potency defining the latter as 'principium transmutandi aliud inquantum aliud' and the former as that 'in quam vel de qua aliquid proprie producitur', adding that the 'de qua' obtains its significance from the resulting composite and the 'in quam' from the relation of potency to the form received and to the efficient cause—*Ox.* i, d. 5, q. 2, n. 20; *R.P.* iv, d. 13, q. 1, n. 3; *Met.* ix, q. 4, n. 7.

Hence Scotus is far from following Bacon and Pecham in their identification of passive potency with the ability in matter to change and of active potency with the pre-adaptation in matter for particular forms. The latter would savour too much of the theory of *rationes seminales*—a theory that, for him, commits one of the greatest philosophical crimes, namely, the useless multiplication of entities,[1] and creates difficulties where none exist—*R.P.* ii, d. 18, q. 1, n. 8. Consequently, supporting Richard, the Subtle Doctor finds it sufficient to say that matter is 'aliquid positivum potentiale habens naturalem inclinationem ad aliam formam actualem'—*R.P.* ii, d. 12, q. 1, n. 10 and that the form that is educed from matter previously existed in it as some intrinsic passive principle—*Ox.* ii, d. 18, q. 1, n. 5. That which actualizes this intrinsic passive principle in matter is, of course, the agent. Concerning the process of actualization, Scotus's chief observations are:

(1) The agent in virtue of its substantial form assimilates to itself the matter of the recipient and induces in it a similar form—*R.P.* iv, d. 12, q. 3, n. 15 and d. 13, q. 1, n. 21.

(2) The agent and the recipient do not require an actual communication in matter but only a 'communicatio aptitudinalis'—*R.P.* iv, d. 12, q. 3, n. 23: indeed, a form could not act on the matter that it informs—*Ox.* ii, d. 25, n. 16. Hence, it must be concluded that a created agent can act at a distance—*R.P.* ii, d. 9, q. 3, n. 3; *Ox.* i, d. 37, n. 2.

(3) The agent produces gradually its effects in the innermost parts of the recipient as well as on the surface—*R.P.* ii, d. 9, q. 3, n. 3. The effect may involve a 'similitudo in forma et in modo

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[1] The desire to avoid an unnecessary multiplication of entities is usually associated with Occam and is known as Occam's razor, but the desire was voiced by Richard of Middleton (*Quaest.* 13, a. 2, Quaracchi edition, p. 227), who found his authority in Aristotle's *Phys.* i (cf. i, S. 3, c. 1, f. 13^v).

essendi formae', in which case the change is called 'univocatio completa', or only a 'similitudo in forma' (e.g. in the house that is built) and then it is called 'univocatio diminuta'—*Ox. Prol.* q. 4, n. 45. Variations in the effects of the same agent are due to the nature of the recipient, e.g. the sun both dries mud and dissolves ice—*R.P.* iv, d. 12, q. 3, n. 14.

(4) In inducing a new form in matter the agent corrupts the old one which retires into the potency of its matter—*R.P.* iv, d. 1, q. 1, n. 12. If there were not this corruption, we should have to suppose that matter could be perfected simultaneously by two ultimate forms—*R.P.* i, d. 5, q. 2, n. 11 and iv, d. 11, q. 1, n. 2. By producing the form in matter the agent may be said to create the *esse* of the composite—*R.P.* iv, d. 1, q. 1, n. 7.

TYPES OF BECOMING

As regards creation, the chief contribution of Scotus to the traditional theory is his replacement of the idea of Divine action exclusive of a material cause by one of activity when all concreated causes are excluded, barring the final cause, which is necessary to move the efficient cause to action. This substitution he justifies by saying that the traditional theory could be applied to the activities of the angel, to the human soul, and to such accidental forms as faith, hope, or understanding—*R.P.* iv, d. 1, q. 1, n. 12. The exclusion of the formal cause as a condition of creation is directed especially against Henry of Ghent, who spoke of creation as a production from *esse possibile.*[1] Scotus maintains that creation is strictly the eduction of a being *ex nihilo existentiae et essentiae*, because *esse essentiae* and *esse existentiae* are really inseparable, and because an *esse possibile*, as an *esse cognitum*, has already an *esse in actu licet secundum quid*, which would prevent creation from being absolutely *de nihilo*—*Ox.* ii, d. 1, q. 2, n. 6–10; *R.P.* ii, d. 1, q. 2, n. 3 f.

The results of creation are firstly, as John Damascene c. 17[2] says, the angelic beings, and, secondly, matter and form, matter being prior to form in the order of nature—*Ox.* ii, d. 2, q. 8, n. 2; *R.P.* iv, d. 43, q. 2, n. 34.

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[1] Cf. Henry of Ghent, *Summa*, a. 21, q. 4; *Quodl.* i, q. 9; viii, qq. 6 and 9; x, q. 7.

[2] *De Fide Orth.* ii, c. 3; *P.Gr.* 94: 873.

Contrary to Avicenna (9 *Met.*, c. 4 [1]) no creature has the power of creating—*Ox.* ii, d. 1, q. 2, n. 4 and iv, d. 1, q. 1, n. 28 f.; *R.P.* iv, d. 1, q. 1, n. 5 and 13 f. Generation may resemble creation because the agent produces a *hoc esse*; but it is not the same, for no created agent produces a being inasmuch as it is an *esse*. Socrates produces Plato in so far as Plato is *this* man, but not in so far as he is man, for in that case Socrates would produce all men, even himself—*R.P.* ii, d. 1, q. 1, n. 5. Moreover, generation could not be the same as creation because it involves a mutation of the agent and also presupposes matter—cf. *Ox.* i, d. 2, q. 7, n. 11.

Let us turn now to generation, taking the animate type first, because it is generation in its proper sense—*Ox.* i, d. 13, n. 20. Here the agent is the male parent who, in virtue of the specific form that he possesses and is able to realize in the matter of the female, provides the assimilation that is characteristic of all generation. 'Forma est principium formale operandi et producendi simile . . . ⟨et⟩ haecceitas generantis et geniti sunt diversa'—*R.P.* ii, d. 12, q. 5, n. 13. Again, 'Forma specifica est una amborum, non individualis'—*Met.* vii, q. 13, n. 15. This assimilation is due not to a quantitative division of the form, but to a qualitative one—*Met. ibid.*, n. 15 and 16.

The semen, the instrument for transmitting the specific form, is a superfluity of digestion, and in the case of man, for example, not truly human, because not animated—*R.P.* ii, d. 33, n. 11. Nevertheless, it, as well as the female menstruum, is the matter from which the human body is produced successively through the stages of blood, flesh, bones, &c.—*Ox.* ii, d. 18, n. 9 and d. 32, n. 5. Thus the male factor in generation is not entirely active. Similarly, the female factor is not entirely passive, although it must be admitted that it plays the chief part in producing the matter of the body—*Quodl.* xv, n. 10. Its activity is evident from the facts that children resemble their mother more than their father and that the mother loves the children more than the father does—*Ox.* iii, d. 4, n. 3, 13, and 17; *R.P.* iv, d. 49, q. 3, n. 5.

The male and female semen have a special pre-adaptation for the vegetative and the sensitive forms which they are capable of evolving by their own power after the activity of the external agent has been withdrawn. This power, for Scotus as for Richard, is the only legitimate meaning for the term 'rationes seminales'. 'Universaliter negatur ratio seminalis coaeva materiae, ita ponitur in generali quod non sit ratio seminalis in quacumque alteratione praevia generationi, sed solum in illa . . . ubi, absente agente extrinseco, alterandum ex se perficit, ut fiat generatio, quod in nullis videtur nisi in genitis ex semine proprie: ideo ibi solum ponitur ratio seminalis, non in putrefactione nec multo magis in inanimatis mixtis, nec respectu elementorum; imo nec in genitis ex semine animalibus et plantis poneretur ratio seminalis, ita quod esset activa, nisi manifestum esset quod semen ibi alteratur sine praesentia agentis extrinseci, quod si poneretur illam alterationem esse a continente vel a corpore coelesti, nec ibi poneretur vis activa; patet ergo ubi ponenda sit'—*Met.* vii, q. 12, n. 7.

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[1] *Ibid.*, f. 104ᵛb.

Consequently in *Ox.* ii, d. 18, n. 8 Scotus writes, 'Quid est ratio seminalis? Dico quod est aliqua forma seminis, inquantum semen est, et illud vel est forma substantialis seminis, inquantum semen est, vel qualitas necessario consequens formam substantialem seminis.' But in this later work he departs from his teaching in the *Quaest. Met.* by allowing the term 'rationes seminales' to be applied to generation by putrefaction—'Omnia mixta possunt habere rationes seminales quia a generante recipiunt qualitates quae sunt viae ad formas ulteriores et perfectiones; in cadavere enim bovis potest induci qualitas aliqua a corpore coelesti, quae est via ad formam apis et est similis illi, quae datur a generante univoco et est ratio seminalis; potest etiam ratio seminalis esse in non vere mixtis, sicut in mixtis per iuxtapositionem, et tale mixtum potest habere qualitatem quae est via ad formam perfectiorem. . . . Ex dictis patet quomodo intelligendum est illud Augustini 3 *De Trin.* c. 9 [1] quod in elementis mundi huius ponendae sunt rationes seminales'—*Ox.*, *ibid.*, n. 11.

This active principle of generation, whether in the semen or in mixtures of elements, comes from God. In the case of the semen, it is just as necessary as in mixtures, for firstly, that which does not exist cannot produce another being, and we know that the semen does not exist at the instant of generation; secondly, the imperfect cannot be the sufficient active cause of the more perfect; lastly, the semen is only an accidentally ordained cause not being responsible even for the diversity of corporeal organs, since such diversity could not originate from the uniform and homogeneous semen—*Ox.* ii, d. 18, n. 9 and 10; *R.P.* ii, d. 18, n. 10 f. The Divine co-operation, however, whether it functions in animate or inanimate generation, does not compromise the legitimate activity of creatures—cf. *Met.* vii, q. 12, n. 7; *Ox.* i, d. 8, q. 5, n. 26.

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[1] *De Fide Orth. P.L.* 42: 878.

Of spontaneous generation Scotus says little. It applies only to those imperfect animals that are capable of being educed from elements *contemperata et proportionata*—*R.P.* ii, d. 18, n. 13; and it lacks the similarity between generator and generated because the form of the generated existed previously in the generator only 'in virtute'—*Met.* vii, q. 11, n. 4; *Ox.* ii, d. 18, n. 7. In fact, it might be thought that since the generator, i.e. the sun, generates from a distance, it does so only by its accidental forms, i.e. rays, without even possessing the form 'in virtute'; but this cannot be true, because accidental forms do not produce substances; they serve only to dispose matter for the reception of the substantial form which is imposed without causing anything substantial in the medium—*R.P.* i, d. 37, q. 2, n. 6.

Under inanimate generation, the third type of becoming, Scotus includes both artificial generation and the generation of one element from another or of mixtures from elements. Artificial generation, like spontaneous generation, involves only an 'in virtute' pre-existence of the form (viz. in the mind of the artist) and hence, it too is called equivocal or 'generatio secundum quid'—*Ox.* iv, d. 1, q. 1, n. 20; *R.P.* iv, d. 1, q. 1, n. 15; *Met.* vii, q. 11, n. 4. However, it differs from spontaneous generation as well as from natural animate generation because (*a*) the form produced is accidental and not substantial, and (*b*) the intrinsic passive principle involved is not moved 'secundum inclinationem suam' but towards a form to which it is either opposed or indifferent—*Ox.* ii, d. 18, n. 5 and 6; *Ox.* ii, d. 12, q. 1, n. 7. What Scotus has to say of the second type of inanimate generation will be found on pp. 290 and 309.

MATTER IN ITS STATIC ASPECT

In treating of change we have already said that Scotus does not regard matter as pure passive potency. It must have some positive entity of its own, though not such as will transform its character into an actuality like that of form. This entity is supported by many considerations: (1) If in the composite there is no subject that remains during the corruption of one form and the generation of another, we have to conclude that there is no substantial generation, but either a conversion of the whole into a whole, which is transubstantiation, or an annihilation of the first form and a creation of the second. There must be, then, a subject that receives forms and that is neither of the same nature as form nor posterior to it—*Ox.* ii, d. 12, q. 1, n. 4 f.; *R.P.* ii, d. 12, q. 1, n. 2 f. and iv, d. 43, q. 2, n. 34. Consequently, matter must have its own entity, for 'non minus realiter est aliquid principium quando actu principiat, quam quando non principiat sed potest principiare'—*Met.* ix, q. 2, n. 2.

(2) If a composite is corruptible in virtue of something intrinsic, this will not be through form, but through matter, for, as Aristotle says, matter is that by which a thing is able to be or not to be. Therefore, matter is an intrinsic principle contributing to the quiddity of the composite and so having a real entity—*Ox.* ii, d. 12, q. 1, n. 6; *R.P.* ii, d. 12, q. 1, n. 6.

(3) A thing that is truly caused is caused from the four causes. Hence matter must be one of the intrinsic causes in things, and what is a cause of being must itself have some being—*Ox. ibid.*, n. 8; *R.P. ibid.*, n. 9.

(4) If matter were not distinct from form, there would be no composites but only simple substances.

(5) Matter may be ingenerable but it is not unproducible; it was created by God as something prior in nature to form. Consequently, if matter is the term of creation, it must have some entity—*Ox. ibid.*, n. 9 and 16 and *R.P. ibid.*, n. 9.

(6) Augustine regarded matter as having a nature distinct from form. Thus in *Conf.* 12, c. 32[1] he says, 'Domine, duo fecisti, unum prope te, ut angelicam naturam, alterum prope nihil, ut informem materiam,' and in *ibid.*, 'materia non est

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[1] Cf. xii, c. 7, *P.L.* 32: 828.

omnino nihil,' and again in *7 super Gen. ad Litt.*,[1] 'materia est aliqua entitas'—*Ox. ibid.*, *R.P. ibid.*

Such are the reasons for ascribing an actuality to matter. But Scotus, like his predecessors, takes great care to point out that it is an actuality of the lowest kind—*Ox.* i, d. 27, q. 3, n. 10. Indeed, he usually calls matter 'potency', because it is receptive of all substantial and accidental forms and because the more a thing has of potency, the less it has of actuality: besides, matter has no distinguishing actuality to give it specific being—*Ox.* ii, d. 12, q. 1, n. 11. Nevertheless, if the term 'act' is extended to everything that is outside its cause, matter can be truly called 'act', though not if 'act' is confined to that which distinguishes and denominates or if it is opposed to that which receives an informing act. This last statement is important, for without this precaution Scotus admits that the ascription of an actuality to matter would reduce all generation to alteration and at the same time destroy the unity of the composite—*Ox. ibid.*, n. 12 f.; *R.P. ibid.*, n. 13 f.

Matter may have its own entity, but it never exists apart from form. Still, like Pecham and Richard, Scotus holds that there would be no contradiction in supposing that by the absolute power of God[2] it could so exist, seeing that it has some actuality, that it is the term of creation, and that it is less dependent on form than accidents on the substance from which they are separated in the Eucharist[3]—*Ox.* ii, d. 12, q. 2, n. 2 f.; *R.P.* ii, d. 12, q. 2, n. 4 f., and iv, d. 11, q. 3, n. 12.

The third problem arising under a consideration of matter in its static aspect is that of its unity in all things. Only in the spurious *De Rerum Principio* (cf. p. 284 f.) do we find the adoption of Avicebron's theory of a homogeneous matter in which all things are rooted. Elsewhere, the Subtle Doctor regards matter as one only from the abstract point of view. 'Cuiuslibet individui est alia et alia materia, licet sint eiusdem rationis, quia alia tua, alia mea materia est'—*R.P.* iv, d. 11, q. 3, n. 15. 'Nihil est in natura singulari lapidis, nisi materia singularis et forma singularis lapidis'—*Met.* vii, q. 14, n. 5; *Quod.* ii, n. 7. Again,

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[1] Cf. vii, c. 6, *P.L.* 34: 359.

[2] See p. 362, n. 1.

[3] This was also the view of Scotus's master, William of Ware, in *Quaest. in II Sent.* MS. *Bibl. Naz.* Florence, cod. A. 4, 42, ff. 110^ra–11^va (quoted Longpré, *op. cit.*, p. 70, n. 3).

'Contra primam propositionem, quam accipit, scilicet materia ut est quid, est omnino indistincta, arguitur sic. Quia aut intelligitur indistincta secundum numerum, scilicet quod quaecunque ut est quid, est omnino eadem cuicunque, vel intelligitur indistincta secundum rationem, hoc est, ut est quid, est unius rationis. Si primo modo, iste intellectus est omnino impossibilis quia contra Philosophum et contra rationem naturalem. . . . Contra Philosophum, quia ex intentione loquens 12 *Met.* c. 2 *de per se principiis*[1] dicit quod sicut principiata sunt alia, sic eorum per se principia et hoc secundum genus et speciem et numerum . . ., ergo ex intentione vult quod materia mea et tua ut est per se principium meum et est alia numero. . . . Contra hoc etiam est ratio manifesta quia materia est prior ordine naturae quam ipsa forma recepta, quia materia est fundamentum omnium . . ., si ergo materia, ut est quid, est omnino eadem in se, nullo modo potest esse alia propter aliam formam receptam; ergo ipsa omnino eadem recipiet forma contrarias substantiales'—*Ox.* iv, d. 11, q. 3, n. 18 and 19; *Quodl.* x, n. 9.

In raising the question as to whether the celestial bodies share in this matter, which is logically one in all terrestrial things, Scotus mentions two theories. The first, that of Aristotle and Averroes, denies the possibility and claims that if the celestial bodies possessed a potency of contradiction and corruption, they would not be eternal and incorruptible. The second, that of the theologians, admits the existence of such a matter and holds that the celestial bodies are incorruptible only because God has willed that their forms should have no contrary and that their active power should exceed that of all other corporeal beings capable of acting upon them. Scotus does not choose between these two opinions and, leaving open the question of the existence in the heavenly bodies of a matter that is the subject of generation and corruption, adopts the opinion of Aristotle that at least matter as a 'potentialitas mutationis ad ubi'[2] does exist in these bodies (cf. p. 310)[1]—*Ox.* ii, d. 14, q. 1, n. 2 f.; *R.P.* ii, d. 14, q. 1, n. 2 f.

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[1] xii, S. 1, c. 4, f. 143^{v}b.

[2] In addition to local change, the heavens are subject to changes in their accidental forms, e. g. the moon receives light from the sun—*R.P.* i, d. 44, q. 2, n. 4. Scotus has nothing of Grosseteste's theory of light, for he holds that neither *lux* nor *lumen* is a substance. Certainly *lux* could not be a substance because it is *per se sensibilis*, neither could it be a substantial form, for then whatever had light would be of the same species. Hence like *lumen*, *lux* is

Concerning the spiritual matter, which was posited by his predecessors as the third type of matter in the Universe, Scotus remains in doubt (cf. pp. 317, 343).

FORM IN ITS STATIC ASPECT

Although matter *secundum se* is prior to form, form *secundum eminentiam* is prior to matter—*R.P.* iv, d. 11, q. 3, n. 12; *Met.* vii, q. 6, n. 2; *De Primo* ii, n. 6. It has more entity than matter, and hence can be regarded as conferring upon the composite its actuality and its operation—*Ox.* iii, d. 23, n. 16; *Ox.* ii, d. 12, q. 1, n. 18; *R.P.* ii, d. 12, q. 8, n. 3 and *R.P.* iv, d. 3, q. 2, n. 3. The *exitus* of this actualizing form is the subject that we have now to consider.

It has been shown (pp. 287, 290) that Scotus, like Richard, admits a pre-existence of form in matter only in the sense of an intrinsic passive principle and not of an imperfect pre-existence, such as the theory of the *rationes seminales* posits. On the surface, this theory, he remarks, appears to save becoming from being converted into creation and to agree with the statement of Aristotle in II *Phys.* 3[2] that artificial beings differ from natural beings because the latter have a principle of movement in themselves, for this principle of movement cannot be passive because a passive principle is found even in artificial beings. But in reality, the *rationes seminales* theory destroys becoming just as much as the doctrine it attacks. In the first place, the difference between artificial and natural beings *can* be ascribed to their passive principle, since as belonging to natural beings the movement of such a principle is always *secundum inclinationem suam*, while in artificial beings it is able to result in a form to which its inclination is either opposed or indifferent. Secondly, the theory avoids creation only at the expense of generation;

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only an active quality of the substantial forms of celestial bodies—*Ox.* ii, d. 13, n. 2 and 3; *R.P.* ii, d. 13, n. 2. f.

[1] Two less important theories of matter in which Scotus agrees with his predecessors are: matter is the term of creation and, therefore, ingenerable and incorruptible but not eternal—*R.P.* ii, d. 12, q. 1, n. 12; and matter is unknown to us, though not to God Who created it—*Ox.* ii, d. 12, q. 1, n. 20; *R.P.* ii, d. 12, q. 1, n. 23.

[2] Cf. ii, S. 1, c. 1, f. 23^r f.

if the form pre-exists, nothing new comes by generation and all things must have been imperfectly created together. Again, on the supposition of that theory, the *rationes seminales* would be able to act in virtue of non-being or imperfection, whereas, in truth, as imperfect beings, they can act only in virtue of the more perfect. Besides, either the part of the form induced by generation is educed immediately from the potency of matter, in which case the *rationes seminales* are superfluous, or it is not thus educed but comes into actuality from something of the same nature as itself. Lastly, contrary to the theory under discussion, the new element given in generation does not mean creation, because matter is always presupposed—*Ox.* ii, d. 18, n. 3 f.; *R.P.* ii, d. 18, n. 3 f.; *Met.* vii, q. 12, n. 2 f.

Hence to this first question Scotus replies that a form may be said to come *ab intra* because of the passive inclination in matter and *ab extra* because an external agent is required to give actuality to that inclination. 'Tenendum est materiam esse aliquid positivum potentiale, habens naturalem inclinationem ad aliam formam naturalem quae includit non esse formae quam habet'—*R.P.* ii, d. 12, q. 1, n. 10. 'Eadem forma quae educta est in actu, praefuit in potentia materiae'—*R.P. ibid.*, n. 20. 'Agens naturale . . . formam producit et inducit'—*Ox.* ii, d. 12, q. 2, n. 5. 'Naturalis mutatio est quando passum mutatur, sicut aptum natum est mutari, a quocumque agens fiat, sicut dicit 2 and 8 *Phys.*:[1] sed nunquam passum est sic aptum propter principium activum intrinsecum eius in quo est; ex quo patet quod natura est principium intrinsecum motus in eo quod movetur in quantum movetur, inexistens sibi solum propter principium passivum'[2]—*Ox.* ii, d. 18, n. 5.

Our second question asks whether the actuating form is educed successively from its matter. Like his predecessors, Scotus thinks it is, both on account of the imperfect power of agents and the resistance offered by recipients—*Ox.* iv, d. 43, q. 5, n. 4, and *ibid.*, ii, d. 2, q. 9, n. 40. Besides, Aristotle has

[1] Cf. ii, S. 1, c. 1, f. 23r f. and viii, S. 1, c. 2, f. 160r f.

[2] This natural and passive inclination in matter saves Scotus from M. Landry's criticism that the rejection of *rationes seminales* leaves creatures at the mercy of exterior agents and commits them to an eternal flux—cf. *Duns Scot*, Paris 1922, pp. 71, 60. As regards the eternal flux, Scotus himself brings the same objection against the *rationes seminales* theory, saying, 'nunquam materia aliqua erit in quieto esse sub aliqua forma'—*Met.* vii, q. 12, n. 4.

pointed out in 8 *Met.* text 14[1] that wine is not made from vinegar *statim et immediate*—*R.P.* iv, d. 3, q. 3, n. 3. Hence Scotus writes, 'Usque ad ultimum instans corruptionis remanet forma substantialis, etiam secundum eos qui non ponunt formam substantialem reciperi magis et minus, sed usque ad ultimum instans tantum remanet alteratio, igitur quamdiu remanet alteratio, tamdiu remanet forma corrumpenda'—*R.P.* iv, d. 12, q. 3, n. 16; *Met.* viii, q. 2, n. 2 f. and q. 3, n. 3 f.

Scotus thinks that this successively educed form that actuates the composite is a specific form with individual properties. As a specific form, it is that nature which we recognize as similar in certain composites and which we call the common or universal nature, though of itself it is not common, but rather, as Avicenna in 5 *Met.* 1[2] says, neither universal nor particular—*R.P.* ii, d. 12, q. 5, n. 12; *Met.* vii, q. 18, n. 8. Because it is the foundation of our universal concepts (and this Scotus thinks we must assume if our knowledge is to have any validity), this specific form is often confusingly referred to by him as a universal. Thus he proclaims, 'Illud quod est universale est in re. Confirmatur, aliter in sciendo aliqua de universalibus, nihil sciremus de rebus, sed tantum de conceptibus nostris'—*Met.* vii, q. 18, n. 10. 'Universale secundum quod universale habet esse extra intellectum, et aliud quam cognosci'—*Met.* vii, q. 14, n. 5. And again, 'Alia opinio est quod universale tantum est in intellectu. Ad hoc est auctoritas Commentatoris 1 De Anima[3] . . . Contra istam opinionem, obiectum naturaliter praecedit actum; ergo universale naturaliter praecedit intellectionem quando universale intelligitur, sed non est in intellectu in actu, nisi per intellectionem'—*Met.* vii, q. 18, n. 5.

But, as the last quotation implies, Scotus, like his predecessors, really intends that the universal that is actual exists only in the intellect, while the potential universal, which is the specific nature, exists only in things. This is evident from the following passages, 'Destruitur intellectus agens nisi faciat de potentia universali actu universale, cum secundum Commentatorem 3 De Anima comm. 18[4] ideo ponatur intellectus agens, ut faciat de potentia universali actu universale'—*R.P.* i, d. 3, q. 4, n. 4; *Ox.* i, d. 3, q. 6, n. 6. 'Intelligendum quod universale completum est quod est in pluribus et de pluribus non actu sed potentia propinqua; tale nihil est nisi ex consideratione intellectus'—*Met.* vii, q. 13, n. 19. Further, 'Universale in actu non est nisi in intellectu, quia non est actu universale, nisi sit unum in multis et de multis, ita quod de multis est aptitudo proxima universalis in actu, quia non potest haberi in actu universale, quo ipsum est dicibile de alio sic, hoc est hoc, nisi per intellectum. Tamen ista unitas realis media inter numeralem et rationis, non est differentia universalitatis, quia hoc est actu dicibile de multis; sed solum est indifferentia, secundum quam non repugnat sibi esse hoc et hoc simul . . . Nec omnis unitas realis minor unitate numerali est universalis, sed est unitas naturae praesuppositae operationi intellectus, et ideo intellectus movetur magis ad abstrahendum unum conceptum specificum a Socrate et Platone quam a Socrate et lapide, et ideo intellectus causat universalitatem; tamen illi naturae habenti minorem unitatem non repugnat ex se esse in multis, sicut repugnat singularitati advenienti'—*R.P.* ii, d. 12, q. 5, n. 12; *Ox.* ii, d. 3, q. 1, n. 7–8; *Met.* vii, q. 13, n. 9 and 10.

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[1] viii, S. 1, c. 7, f. 104^{v}a.

[2] 5 *Met.* c. 1, f. 86^{v}a.

[3] i, S. 1, c. 1, f. 109^{v}b.

[4] iii, S. 1, c. 3, f. 169^{v}b.

Having shown the moderate realism of Scotus, I turn to the individual properties that are found together with the specific nature, for 'species non praedicat totam naturam individui integraliter, sicut nec genus speciei'—*Met. ibid.*, n. 13. These properties perfect the determinable and potential nature of the specific quiddity by making it a true factor of the individual composite which alone has supreme value. 'Natura extra animam ipsa est propria illi cuius est, sed non de se, sed per aliquid posterius se contrahens ipsum ut per haecceitatem'—*R.P.* ii, d. 12, q. 5, n. 14. 'Dico quod intentio naturae in specie sistit, tanquam in perfectiore quam sit genus, et sistit in individuo tanquam in entitate perfectiori et realiori quam sit entitas speciei'[1]—*R.P.* i, d. 36, q. 4, n. 25. The greater perfection of the individual is well expressed in *Met.* 7, q. 13, n. 17: 'Individuum est verissime ens et unum, sicut arguitur hic de prima substantia quod est maxime substantia, et ipsius est generatio et circa ipsam sunt operationes; ipsa etiam operatur. Because of this supremacy of the individual Scotus goes into the problem of individuation at great length.

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[1] Cf. St. Thomas, *S. Theol.* i, q. 85, a 3, ad 4: Ultima naturae intentio est ad speciem non autem ad individuum neque ad genus.

Starting from the theory of Boethius that the chief characteristic of an individual is its numerical unity and indivisibility into parts, Scotus understands the question of individuation to ask what is the proximate and intrinsic foundation of this repugnance to division into 'subjective' parts—cf. *Ox.* ii, d. 3, q. 2, n. 3 and q. 4, n. 3; *R.P.* ii, d. 12, q. 4, n. 3; *Met.* 7, q. 13, n. 9 and 17. Of the many contemporary solutions which he considers let us take firstly that of Nominalism.

This theory attempts to solve the difficulty without importing any negative or positive factors. Material substances, it says, are individuated *per se*, for that which gives reality to a substance is the same as that which gives individuality. 'Natura quaelibet de se et secundum se formaliter, sicut est natura, ita singularis; universalis enim non est nisi ex intellectu considerante'—*Met. ibid.*, n. 8. Any nature existing apart from the mind of necessity includes singularity, just as any nature in the soul is of necessity universal. Hence we should not ask what is the cause of singularity, for such a question implies that a nature first exists and afterwards becomes a singular. The only possible cause of its singularity would be the four causes which brought it into existence, the intrinsic causes being matter and form, the extrinsic ones the efficient and final causes—*Met. ibid.*

To this Scotus replies that if a nature *ex se* is a *this*, the intellect, when understanding it as universal, understands it under a character opposed to its nature, just as if it were to understand Socrates as a universal. Further, if the nature of a stone *per se* is a this, it will be found in every *suppositum* of the species as the nature of *this* stone, and we shall not be able to say what is *this* same substance in the *supposita*. Besides, this theory would mean that the nature, which is *de se haec*, becomes the whole substance of different individuals, and thus the species would be identical with the whole nature of the individual. But we know that the intellective soul as the form of man differs in different men, and so the substance of this man must differ from the substance of that man, and no exception ought to be made to fit the case of man. Lastly, if a nature of itself is a *this*, then the individual would pre-exist and there would be no generation, especially since any nature *per se* is repugnant to becoming another *this*; indeed, such a nature ought to be repugnant to all numerical multitude, just as the Divine essence is, because it is *de se haec.*

To the whole theory Scotus objects that every nature of itself is indifferent to singularity and to universality. To become the former, it must be contracted; to become the latter, the intellect must confer on it that characteristic. Of itself, the nature is merely a type of unity less than numerical; if this be not granted, we are left with a world composed of isolated beings without any basis for comparison, which is equivalent to saying that we have a completely unknowable world—*Ox.* ii, d. 12, q. 1, n. 2–10; *R.P.* ii, d. 12, q. 5, n. 2–14; *Met.* vii, q. 13, n. 8–12.

Having shown that the Nominalistic position is untenable, Scotus passes to the theory suggested by Richard (of St. Victor) in *De Trin.* i[1] that negation is the cause of individuation. This, he contends, would involve a double negation, for a thing is indivisible not only in respect of other things but also in respect of itself, and the negation theory overlooks the second aspect. Again, negation is of the same nature in the many, and, therefore, cannot individuate. If privation cannot be the cause of a thing's repugnance to subjective division—and this it cannot be because privation means only a lack of a proximate potency and not an absolute repugnance to it—negation cannot be, for since division is an imperfection, it cannot be repugnant to a thing unless through some positive perfection. Negation, as negation, implies no perfection, but, as Aristotle says in *De Praedic.*,[2] the first substance (i. e. the individual) is more important than the second substance (i. e. the universal), and hence that which constitutes its entity will not be negation. Besides, negation is incompatible with the first substance as the principle of generation and operation—*Ox.* ii, d. 3, q. 2, n. 2–4; *R.P.* ii, d. 12, q. 6, n. 2–4 and q. 8, n. 2; *Met.* vii, q. 13, n. 8 and 17.

Could something positive be the cause of individuation? Existence, accidents, *respectus*, matter, and quantity have all been suggested. Let us consider them in turn.

Can existence individuate?[3] That the actual existence of human nature, for example, is the formal reason for contracting that nature to individual being has been supported on the ground that Aristotle in *Met.* vii [1] says that act determines and distinguishes, and therefore the ultimate determination ought to follow on the ultimate act, which is existence. To this Scotus objects that what is not of itself distinct cannot distinguish another, and obviously the *esse* of existence is not of itself distinct from the *esse* of essence, for it has no proper *differentiae* apart from those of the essence. Consequently, as the fact of existing is not what differentiates individuals, the ground of the distinction between existing individuals must lie in their essence. Again, to any predicamental co-ordination existence does not pertain *per se*, for God alone intrinsically includes actual existence; therefore in the world of creatures, existence is, in a sense, accidental. If it were not, there would be only knowledge of quiddities actually existent. Hence at one time there would be knowledge of a thing and at another time no knowledge, and so definition would not be of essentials—*Ox.* ii, d. 3, q. 3; *R.P.* ii, d. 12, q. 7; *Met.* vii, q. 13, n. 7.

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[1] Cf. *Ibid.*, c. 17; *P.L.* 196: 898. We have seen that this was also the view of Richard of Middleton.

[2] Cf. tract. 2, c. 1, f. 14^r.

[3] This was the doctrine of Henry of Ghent, cf. *Quodl.* ii, q. 8.

Can accidents individuate? Scotus thinks not, for, like existence, they presuppose something prior in nature, and this something, as Aristotle says (7 *Met.* text 4),[2] is substance. Besides, a cause cannot receive its causative principle from its effect, for then the effect would be its own cause. In reality, the first necessary condition in a substance for the causation of accidents is singularity. Secondly, in every co-ordination of predicaments there is a highest and a lowest, and it is impossible that something which is in a prior genus (i.e. the substance that makes the co-ordination possible) should be distinguished by that which is in a posterior genus. Thirdly, any substance becomes a *non-haec* only by annihilation, but if the *haec* were due to the accidents, the substance could become a *non-haec* or could change its individuality with a change in its accidents. We also know that God can conserve a substance under accidents other than its own, e.g. in the Sacrament of the altar; and this cannot be dismissed by saying that it is a miracle, for miracles do not involve contradiction. Fourthly, if Boethius in I *De Trin.* c. 1 [3] says that accidents make numerical diversity, for three men are the same in species and genus and differ only in accidents, he means that accidents cannot make a more significant difference

[1] vii, S. 2, c. 15, f. 93^{v}b. [2] vii, S. 1, c. 1, f. 73^{r}a. [3] *Ibid.*, *P.L.* 64: 1249.

than numerical diversity. He does not intend that they should make a prime numerical difference, because *this* substance is the cause of *this* accident. Lastly, as Aristotle says (*Met.* 5, c. *de Uno* et c. *de Ente*),[1] an aggregate of substance and accidents is an *ens per accidens*, but a first substance is not such an aggregate and therefore not such an *ens*. It must be an *ens per se* because it generates and operates *per se* and receives predication *per se*—*R.P.* ii, d. 12, q. 4, n. 4–6 and 11; *Ox.* ii, d. 3, q. 4, n. 5 f.; *Met.* vii, q. 13, n. 3 and 4.

Thirdly, a *respectus* to the producing agent cannot constitute individuality, for the nature of an individual is absolute and cannot be formally that which it is because it receives existence from an agent. Moreover, such a *respectus* is not the formal term or primary product of the action but is based on this formal term. Again, if this primary term is singular, the nature of the singular is prior to the *respectus*, because it is its foundation—*Met.* vii, q. 13, n. 7.

Can matter be the principle of individuation? Not in the sense of passivity because that which of itself is indeterminate cannot constitute a distinguishing principle. As passivity, matter will be the same in nature in every individual, or at least its distinction will follow that of form and not vice versa. Again, this theory would mean that the same singularity is found in the corrupted being and in the generated, since matter remains throughout change. Moreover, Aristotle's statement in 7 *Met.*[2] that the generator cannot generate another being without matter refers simply to the matter that contracts the already complete being, for as the formal *ratio* of generation is a substance, so is the term of generation a substance, and just as a substance does not generate except inasmuch as it is *haec ut est prior quantitate*, so a substance is not generated except inasmuch as it too is *haec ut prior quantitate*. The generator may need matter for its activities, but the quantity involved in this required matter is not its first *ratio* of materiality; besides, matter is not inevitably involved in the production of an individual, because the First Agent can produce individuals without matter. That matter is a manifestation of the individual is really all that is implied in the other passages usually cited from Aristotle, e.g. those things are one in number whose matter is one (*Met.* 5.

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[1] v, S. 1, c. 6, f. 52^{r}b.

[2] vii, S. 2, c. 8, f. 83^{v}b.

c. *de Uno*);[1] Callias and Socrates differ on account of matter (*Met.* 7);[2] when I say heavens I imply form, when I say *this* heaven, I imply matter (*De Caelo*, 1).[3] Lastly, even if it could be shown that this was not Aristotle's intention, there are passages denying that matter is the principle of individuation. Thus in 7 *Met.* c. De partibus definitionis[4] Aristotle says, 'the soul is some primary substance and the body is matter, and man or animal is the compound of both taken universally. But Coriscus and Socrates taken singularly will mean *this* soul and *this* body'; and just before that—'the terms man and horse which are applied to individuals, but universally, are not substance but something composed of *this* matter and *this* nature'. And again in 12 *Met.* c. 4[5] where he says 'principia sunt eadem sicut principiata' he allows for a distinction of form as well as of matter in particulars—*Ox.* ii, d. 3, q. 5, n. 3.

In dealing more especially with quantified matter as the principle of individuation, Scotus contends that this theory is open to the same type of objections as those that suggest that existence or accidents produce individuality. Thus, a change in the quantity of an object does not mean a change in its individuality, or, as in the case of the Sacrament, a permanence of quantity does not imply a permanence of individuality; quantity presupposes a composite and is not *de se haec*; quantity does not touch the problem of individuation as repugnance to division into subjective parts.

The theory is put forward because it is supposed that to be divided agrees primarily with quantity, for when we distinguish *this* form of fire from *that*, the distinction of these two forms is due to their reception in different parts of matter and this requires different quantitative parts. But Scotus declares that division into parts of the same nature does not agree primarily with quantity, but rather only division into those integral parts which constitute a whole. In any case, quantity could not be the *ratio* of a division into subjective parts, for then it would have to be formally present in the substance: this is clearly false because quantity is not present in human nature. Besides, while the whole is predicated of subjective parts, it is not predicated of quantitative parts.[1] Lastly, quantity has its own quiddity and is *secundum se* indifferent to individuals—*Ox.* ii, d. 3, q. 4, n. 9 f., q. 5 and 6; *R.P.* ii, d. 12, q. 4, n. 8 f. and q. 5, n. 5 f.; *Met.* vii, q. 13, n. 5 f.; *Quodl.* ii, n. 20.

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[1] v, S. 1, c. 6, f. 54^{r}a.

[2] vii, S. 2, c. 8, f. 83^{v}b.

[3] i, S. 8, c. 7, f. 29^{r}b.

[4] Cf. vii, S. 2, c. 12, f. 87^{v}a.

[5] xii, S. 1, c. 4, f. 143^{v}b.

Scotus agrees with the suggestion of all the foregoing theories that the principle of individuation is a positive entity. Thus he writes, 'Necesse est per aliquod positivum intrinsecum huic lapidi, tanquam per rationem propriam repugnare sibi dividi in partes subiectivas; et illud positivum erit quod dicitur esse per se causa individuationis et per individuationem, intelligo istam indivisibilitatem sive repugnantiam ad divisibilitatem'—*Ox.* ii, d. 3, q. 2, n. 4. And again, 'In entibus extra animam est aliquid hoc singulare determinatum quod non potest dividi in plura sub se . . . oportet ponere in individuo aliquid positivum quod non est sola quidditas quia sibi non repugnat dividi. Praeterea, hoc singulare est aliquid in se et ad se, igitur hoc erit per intrinsecum, non autem per negationem . . .: dico quod istud intrinsecum non potest esse ens rationis'—*R.P.* ii, d. 12, q. 8, n. 2.

But for Scotus the positive entity is none of the things suggested. In the early *Quaestiones* on the *Metaphysics* he makes it to be a kind of last form limiting the determinability of the specific nature. 'Illud quod quid est speciei non est idem cum individuis simpliciter quia addunt super illud formam individualem'—*Met.* vii, q. 13, n. 13. Further, 'Quod quid est speciei est idem cum specie simpliciter, sed non est idem cum individuo sed quodammodo pars eius, cum individuum addat super eam formam individualem,' to which he adds later, 'non sequitur quod eadem forma sit in generante et genito, sed forma specifica est una amborum, non individualis'—*Met. ibid.*, n. 15. Again, in *ibid.*, n. 16, 'natura quam ego pono determinatur ad unitatem numeralem per formam individualem.'

In his later works, however, the Subtle Doctor declares that the individuating positive entity is neither matter nor form nor the composite, but an *ultima realitas entis*, that is a union of *this* matter with *this* form in *this* composite,[2] 'Et si quaeras:

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[1] Lychetus, the commentator on this passage, interprets this as meaning that the statement 'this man is man' is true, but not the statement that 'this part of wine is the whole of wine

[2] Concerning the apparent inconsistency between the early *Quaest. Met.* and the two later *Commentaries* Minges remarks, 'Nur insofern kann man nämlich sagen, dass die letzte Form das Prinzip der Individuation ist, als die letzte

Quae est ista entitas individualis a qua sumitur differentia individualis? Estne materia vel forma vel compositum? Respondeo, omnis entitas quidditativa, sive partialis sive totalis alicuius generis est de se indifferens, ut entitas quidditativa ad hanc entitatem et illam, ita quod ut entitas quidditativa est naturaliter prior ista entitate ut haec, et ut prior est naturaliter, sicut non convenit sibi esse haec, ita non repugnat sibi ex ratione sua suum oppositum. Et sicut compositum non includit suam entitatem, qua est hoc, inquantum natura, ita nec materia inquantum natura includit suam entitatem qua est haec materia, nec forma inquantum natura includit suam; ergo ista entitas non est materia vel forma nec compositum, inquantum quodlibet istorum est natura, sed est ultima realitas entis, quod est materia vel quod est forma vel quod est compositum'—*Ox.* ii, d. 3, q. 6, n. 15.

'Dico quod sicut compositum in genere habet in se partes, materiam et formam, et materia potest concipi sub ratione universalis, similiter forma et compositum; et similiter in aliis generibus, et in negationibus et privationibus, quidquid potest concipi ut universale, illud non est de se hoc, cum potest sic concipi absque modo concipiendi opposito obiecti. Et cum non potest ita concipi, est de se haec. Ideo in materia est natura et haec proprietas, et similiter in forma; similiter et in composito. Et formalitas naturae non est formalitas quae est incommunicabilis, nisi denominative; tamen in composito est formalitas quae est communicabilis; igitur sex sunt entitates in composito per identitatem unitive—*R.P.* ii, d. 12, q. 8, n. 8.

Scotus admits that it is impossible to say definitely what the individuating positive entity is. We have a vague intuition of it but we cannot define it, for that which we define is applicable to every individual in that particular species, and the point about individuality is its repugnance to other beings—*Met.* vii, q. 13, n. 13; *Ox.* ii, d. 3, q. 6, n. 17; *R.P.* ii, d. 12, q. 8, n. 10. The fault lies not in the individual, since that is perfectly intelligible of itself, but in the weakness of our intellect due to

Form, d. h. diese numerisch bestimmte Form, diese numerisch bestimmte Materie näher determiniert, da ja die Form das Determinierende, hingegen die Materie das Determinierte ist. Eine für sich bestehenkönnende konkrete numerisch bestimmte Materie erhält eben durch eine Form die an sich ebenfalls allein bestehen kann, ihre nähere Determination.'—*Der angebliche excessive Realismus des Duns Skotus*, Münster 1908 (*Beiträge* series, Bd. 7, p. 46).

sin.[1] Hence it can only be said that this *haecceitas* is that which contracts the species, making it to be one in number, incommunicable, and *per se existens*. The *haecceitas* is not even as well known as the specific form which is the principle of operation—*R.P. ibid.*, n. 3 and 10; *Met.* vii, q. 13, n. 23 and q. 15, n. 4.

To the question how is this positive entity related to the specific form of the individual composite Scotus answers, 'Ista proprietas individui numquam est res alia a forma specifica, tamen semper est non idem formaliter, licet aliquid possit continere unitive utrumque.[2] Dissimile tamen est in hoc, quod formalitas specifica semper est simpliciter perfectius gradu vel formalitate generis. Sed non oportet proprietatem individui esse simpliciter perfectiorem formalitate specifica. Secunda dissimilitudo, formalitas specifica contrahit ad esse quiditativum simpliciter perfectum, sed formalitas individui contrahit quiditatem ad aliquid extra quiditatem, quia omnino alterius rationis . . . illa proprietas individui respectu quidditatis habet rationem actus'—*R.P.* ii, d. 12, q. 8, n. 3 and 4; cf. *Ox.* ii, d. 3, q. 6, n. 15.

This positive entity or *haecceitas*, as he calls it elsewhere (cf. *R.P.* ii, d. 12, q. 5, n. 1, 8, 13 and 14; *Met.* vii, q. 13, n. 9 and 20), is formally distinct, then, from the specific nature, and this means that though the two cannot be included in the same concept, they cannot exist apart from each other. Their distinctive character is brought out in *Met.* vii, q. 13, n. 19: 'In Socrate enim, non solum secundum considerationem intellectus, sed secundum ordinem naturalem perfectionum unitive contentarum, prius est animal quam homo, et homo quam hic homo; quod patet ex operationibus propriis,' and in *ibid.*, n. 15: 'Dico quod quodlibet individuum habet naturam specificam integraliter; sed non quantum ad totalitatem praedicationis quia non est sic in isto, quin possit esse in alio, et tamen praeter naturam specificam habent formas individuales per quas distinguuntur formaliter.' Their inability to exist apart is stressed in *ibid.*, n. 21: 'Si loquamur *realiter*, humanitas quae est in Socrate non est humanitas quae est in Platone, et est realis differentia ex differentiis individualibus unitive contentis, inseparabilibus hinc inde.'

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[1] In this sense Bacon would have been right in saying that the problem of individuation has no meaning (cf. p. 148).

[2] This formal distinction, which is usually regarded as one of Scotus's contributions to philosophy, is discussed at length on pp. 353 and 356.

Because the specific nature is related to the *haecceitas* as potency to act (cf. *Met. ibid.*, n. 15 and 16; *R.P.* ii, d. 12, q. 8, n. 8 and 9) and because, as we have seen, it is a potential universal, we find Scotus saying in *Ox.* ii, d. 42, q. 4, n. 7—'Universale in singulari non est aliud quam singulare.' In *R.P.* ii, d. 12, q. 8, n. 9 he takes great care to point out that the specific nature and the positive entity in individuals are not two actualities existing independently—'Dico quod non sequitur quodlibet individuum esse compositum proprie, quia compositio non est proprie nisi ex actu et potentia proprie acceptis, et quod ista proprietas individualis est eadem essentia identitate; ideo ex talibus nunquam proprie fit compositio. . . . Si tu velis extendere "compositionem" ad omne illud quod habet sic naturam quae non est ex se haec et talem proprietatem, concedo quod in individuis est talis compositio.'

THE COMPOSITE

Let us consider now the individualized composite, Scotus's theories of which closely follow those outlined by his forerunners. Its matter and form are partial substances which, being related as potency to act, can be united by an efficient cause to produce one whole substance—*Ox.* ii, d. 12, q. 1, n. 12 and 14; *R.P.* ii, d. 12, q. 1, n. 15 f.; *Met.* viii, q. 4, n. 2. This whole substance, as the composite, has an absolutely different being from that of either of its components, otherwise the whole that is *per se unum* could not be distinguished from the whole that is *unum aggregatione* and the proper *passiones* and operations, which we see in the composite but not in its parts, could not be explained—*Ox.* iii, d. 2, q. 2, n. 7 and 11, and *ibid.*, d. 22, n. 18.

Scotus does not professedly raise the question of the relation of the essence of the composite to its existence. However, he agrees with Richard of Middleton that they could not be really distinct, since if a thing had being independently of its existence, it would not be truly created (cf. p. 288)—*Ox.* iii, d. 6, q. 1, n. 2; *Ox.* ii, d. 2, q. 1, n. 7; *R.P.* iv, d. 43, q. 2, n. 18. Again, he agrees with Richard in proposing that they must be more than logically distinct, for (1) a distinction of existences presupposes a distinction of essences, and (2) in all beings other than God existence is in a sense accidental (cf. p. 301)—*Ox.* ii, d. 3, q. 3, n. 1 and 3; *ibid.*, d. 1, q. 2, n. 3 and *R.P.* iv, d. 43, q. 2, n. 18. He leaves the manner of their distinction undecided, and it can only be added that he does not think of them as formally distinct, for things formally distinguished can never be really separated, and hence there could be no possible essences and no corruption of existing ones.

When actualized in the world of existents, the composite is always the subject of accidents, some of which (e. g. quantity) follow its matter, and some (e. g. quality) its form—*R.P.* iv, d. 12, q. 1, n. 10. As opposed to the *esse simpliciter* given by the substantial form, the *esse* conferred by the accidents is only an *esse tale*—*R.P.* iv, d. 12, q. 1, n. 4; nevertheless, because they do give an *esse* of some sort and because they inhere in a subject, accidents can rightly be called forms, though it must be remembered that the unity which they produce with their subject is only one *per accidens* and not one *per se*, such as is produced by the union of a substantial form with its subject—*Ox.* iii, d. 1, q. 1, n. 3 and ii, d. 12, q. 1, n. 14; *Quodl.* ix, n. 3. The question of the separability of accidents and their posteriority to substance has been raised under the discussion of individuation (p. 301).

Concerning the activity of the composite, it has been already stated (p. 291) that Scotus maintains that this activity must be truly ascribed to it and not to God acting through the composite. Its activity is due primarily to its substance but its accidents are also involved. 'In instanti generationis inducitur forma substantialis immediate in materiam; sed nullum accidens attingit tale passivum; igitur per nullum accidens medians agit in instanti inductionis; sed mediate per formam substantialem inducitur talis forma et non est ibi gradus'—*R.P.* ii, d. 16, n. 16.

That by means of which the composite is active is chiefly the form, but it is not active simply because it has received being from the form. 'Multae sunt formae dantes esse quae non sunt activae. . . . Quae autem sit ratio quare quaedam formae sunt activae et quaedam non, difficile est assignare rationem communem . . . aliquae formae substantiales imperfectiores sunt activae, sicut elementares, et perfectiores non sunt activae sicut mixtorum . . . aliquae etiam mixtorum perfectorum sunt communicativae sicut animatorum, aliquae tamen perfectiores non sunt communicativae sui, sicut formae corporum celestium et formae angelicae'—*Ox.* i, d. 7, n. 19.

COSMOLOGY

The lowest type of metaphysical composite in the universe is the four elements, concerning which Scotus has nothing new to say. As regards their combination in the production of true mixtures and not mixtures *per iuxtapositionem* (*R.P.* iv, d. 3, q. 3, n. 6), he raises the question of the manner in which they remain in the mixture. Avicenna, he tells us, believed that they remained 'secundum formam substantialem non remissa, sed remittuntur quantum ad qualitates', but Averroes (in 3 *De Caelo* text 67 [1]) had criticized this view on the grounds that there must be the same standard for the whole as for its parts, so that if the qualitative activity of the element were reduced, its substantial reality would be similarly reduced. Hence Averroes had concluded that elements remain in a mixture 'remissa secundum formas accidentales *et* substantiales'—*Ox.* ii, d. 15, n. 3 and 4; *R.P.* ii, d. 15, n. 3.

Scotus rejects both of these views, saying that the permanence of the substantial forms of elements in mixtures only involves an unnecessary multiplication of entities; and besides, we have no reason to assume their permanence, for all the apparent operations belong to the mixture. Secondly, if they remained, there would be in a mixture of the four elements actually five *supposita* and the contrary elements would coexist. Thirdly, the mixture would have five specific forms without any one of them perfecting the rest (cf. p. 314). Lastly, since quantity, like other accidents, follows the mixture and the elements, either the mixture would not be true mixture but only a juxtaposition of elements or two bodies would occupy the same place—*Ox. ibid.*, n. 5; *R.P. ibid.*, n. 5 f.

Nevertheless, Scotus seems to avoid the complete annihilation of the elements by assuming with Richard that they remain virtually in the mixture as extreme qualities do in a medium, e. g. the hot and the cold in the warm. 'Sicut qualitates extremae

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[1] iii, S. 8, c. 3, f. 105^{r}b.

dicuntur manere vel habere esse in medio, et non dicitur quod extremum sit in extremo, ita dico de forma mixti quod in mixto dicuntur manere formae substantiales elementorum propter naturalem convenientiam quae est formae mixti cum elementis, quae non est unius elementi ad aliud. . . . Dico quod elementa non manent in mixto secundum substantiam, nec oportet dicere quod maneant secundum qualitates suas, sicut nec qualitates extremae manent in medio: manent ergo in mixto sicut si diceretur quod sensitiva et vegetative manent in intellectiva'—*Ox.* ii, d. 15, n. 6; and in *ibid.*, n. 8 he adds 'in mixto sunt qualitates similes qualitatibus elementi, non eaedem . . . qualitas mixti est perfectior quam qualitas elementi.'

Above the elements and the mixtures of the universe are the relatively incorruptible celestial bodies with their *materia ad ubi*. This matter, in the case of the seven planets, allows for four types of movement: (1) the diurnal movement from East to West received from the ninth sphere, (2) a variation in latitude due to the fact that a planet does not always remain at the same distance from the unmovable poles of the ninth sphere, (3) a variation in longitude arising from the non-uniform motion at which the different planets traverse the Zodiac, and (4) a variation in elevation and depression (i. e. in distance from or proximity to the earth), which Ptolemy had demonstrated in his *Almagest*—*Ox.* ii, d. 14, q. 2, n. 4.[1]

In his *De Qualitate Motuum Caelestium* Alpetragius has explained the second and third movements by attributing to each planet a single heaven and placing its poles outside those of the world.[2] But his theory, though agreeing with natural principles, cannot account for the fourth movement; this requires the Ptolemaic system of eccentrics and epicycles. In positing eccentrics we must suppose that each planet has at least three orbs if we are to evade the difficulties of a void, of a rarefaction and condensation of the celestial body, or of a simultaneous existence of two bodies in one place. In positing epicycles we must imagine them not as orbs surrounding the earth, but as small orbs situated within the orbs that do surround the earth—*Ox. ibid.*, n. 5 f.; *R.P.* ii, d. 14, q. 2, n. 2 f.

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[1] Cf. P. Duhem, *Le Système du Monde*, t. 3, p. 493, for the genuineness of this part of the *Opus Oxoniense*.

[2] After giving an account of Scotus's exposition of this theory Duhem (*Le Système du Monde*, t. 3, p. 496) adds, 'Dans les écoles franciscaines, on avait étudié le livre d'Alpetragius d'une manière beaucoup plus détailée que chez les Dominicaines.'

Around the seven planets is the sphere of the fixed stars which also shares in the diurnal movement from East to West. Scotus tells us that in addition to this movement Ptolemy attributed to this sphere a proper movement from West to East of a degree in a century and that Ibn Thabit denied his hypothesis and substituted a trepidating movement, but Scotus himself does not adopt either system [1]—*Ox.* iv, d. 43, q. 3, n. 2 f.

Around these eight spheres, the only ones recognized by Aristotle, is the ninth sphere, which is essential for the communication of the diurnal movement—*R.P.* ii, d. 14, q. 2, n. 3; *Ox.* ii, d. 14, q. 2, n. 3; and surrounding all these spheres is the empyrean.

PSYCHOLOGY [2]

Like his predecessors, Scotus regards man as a composite being possessing both corporeal and spiritual factors. 'Contra Hugonem et Magistrum arguitur primo per auctoritatem Augustini 13 *de Civitate Dei* cap. 23: [3] Homo non est corpus solum nec anima sola, sed qui ex anima constat et corpore—*R.P.* ii, d. 22, n. 4; *Ox.* iv, d. 10, q. 7, n. 2; *Quodl.* ix, n. 8.

Of body as abstracted from its animating principle Scotus says that it is a mixture of elements, or more precisely, an organization of determinate mixtures forming organs. Of these, the heart assumes the nature of a centre since through it the soul communicates its powers to the other bodily parts—*Ox.* iv, d. 44, q. 1, n. 3; *ibid.*, d. 8, q. 1, n. 4 and *ibid.*, d. 13, q. 2, n. 20; *ibid.*, d. 49, q. 14, n. 6 and 7; *R.P.* iv, d. 43, q. 2, n. 8. Each organ has its own substantial form, as is borne out by the fact that when a part of an animal is separated, it remains in act apart from the form of the whole animal, and also by the permanence of the bones after the corruption either of the animal form or such other subsidiary forms as the flesh—*Met.* vii, q. 20, n. 2. During the embryonic stage these organs develop into an organism that becomes complete when it assumes a *forma corporeitatis* or *forma mixtionis*. 'Si ponantur partes organicae differre secun-

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[1] As Duhem remarks (*ibid.*, p. 492) Scotus, unlike Albert the Great, does not attempt to admit these two theories simultaneously.

[2] The plant and animal kingdoms will be ignored since Scotus makes no special contribution to the study of them.

[3] *Ibid.*, c. 24, *P.L.* 41: 399.

dum formas substantiales, tunc enim praecedit generatio unius non solum natura, sed etiam tempore generationem alterius partis, et etiam generationem illam quae est simpliciter generatio totius, qua scilicet inducitur forma totalis praesuppositis iam formis omnium partium'—*Ox.* iv, d. 11, q. 3, n. 41.

Of the *forma corporeitatis* Scotus writes, 'Universaliter in quolibet animato necesse est ponere illam formam qua corpus est corpus, aliam ab illa qua est animatum. Non autem loquor de illa quae est corpus, hoc est individuum corporis quod est genus, (nam quodcumque individuum sub forma taliter est corpus, ut corpus est genus et habens corporeitatem,) sed loquor de corpore, ut est altera pars compositi. Per hoc enim non est individuum, nec species in genere corporis, nec in genere substantiae, quod est superius, sed tantummodo per reductionem. Unde corpus quod est altera pars manens quidem in esse suo proprio sine anima, habet per consequens formam qua est corpus isto modo et non habet animam: et ita illa forma necessario est alia ab anima; sed non est aliquod individuum sub genere corporis, nisi tantum per reductionem ut pars, sicut nec anima separata est per se inferius ad substantiam sed tantum per reductionem'—*Ox.* iv, d. 11, q. 3, n. 54.

This argument for the *forma corporeitatis* based on the fact that the body remains the same after death Scotus, like Richard, supports by the impossibility of supposing that the corruptor generates a new similar substantial form. Secondly, if the soul were united immediately to prime matter without any *forma mixtionis*, the resulting composite would neither be not-man, because it has that by which man is man *formaliter*, nor man, because it would lack the bodily entity which is of the very essence of man. Thirdly, Scotus supports the *forma corporeitatis* by the Eucharistic arguments found in Pecham and Richard—*Ox.* iv, d. 11, q. 3, n. 28–32, 38, 39, and 57; *R.P.* iv, d. 11, q. 3, n. 21 f. Lastly, he calls to his aid Augustine, *De Fide ad Petrum*[1]—'Idem homo in utero matris et pependit in cruce et iacuit in sepulchro et resurrexit; sed non potest intelligi hic ista identitas nisi ratione partis quae est corpus'; and concludes, 'Corpus Christi per se includit materiam et ad minus formam unam misti priorem intellectiva, et per istam formam est in actu partiali et est proximum receptivum animae intellectivae'—*ibid.*, n. 32 and 57.

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[1] This work is really by Fulgentius Ruspensis but is printed as an appendix to Augustine in Migne, *P.L.* 40—cf. §. 11, c. 755.

Once the subsidiary forms of the embryo are organized and the *forma corporeitatis* induced, the intellective form appears, and in this sense we may say, 'non prius tempore erat corpus quam anima'—*Ox.* iv, d. 43, q. 5, n. 7. 'Organisatio . . . quae immediate disponit ad animam intellectivam non praecedit tempore animationem etiam in nobis, quia tunc pater nullo modo generaret hominem. Completa enim esset eius tota actio prius duratione quam esset anima. Ille autem non generat hominem, cuius tota actio completa est prius tempore quam sit homo'—*Ox.* iii, d. 2, q. 3, n. 5. Again, 'Forma ⟨corporis⟩ non est dispositio necessaria vel necessitans ad intellectivam et licet statim sequatur eam intellectiva in generatione, hoc non est propter necessitatem inter eas, sed quia agens superius habet passum proportionatum compositum quia ex materia et forma mistionis, et quando habet passum proportionatum compositum, statim inducit in illud illam formam, cuius est capax. . . . Ad animationem ab intellectiva requiruntur cor et hepar determinate calida, cerebrum determinate frigidum, et sic de singulis partibus organicis. Tali autem dispositione cessante, potest adhuc manere qualitas aliqua, quae stat cum forma misti; licet non illa, quae requiritur ad esse et operationem intellectivae in materia'[1]—*Ox.* iv, d. 11, q. 3, n. 56.

Without the intellective form the *forma corporeitatis* could not possess an *esse perfectum et quietum*, as is clear from the ultimate resolution of the body into its elements when once the intellective form is separated—*Ox. ibid.*, n. 55. Hence Scotus can still maintain, 'Anima naturaliter est perfectiva corporis organici ut forma'—*Ox.* ii, d. 1, q. 5, n. 2, and 'Anima est immediatum principium formale essendi et principium immediatum operandi'—*Ox.* ii, d. 16, n. 6.

[1] By this opinion Scotus escapes the difficulties of modern Scholastics who suppose the rational soul to be infused at the time of conception before the brain, its proper organ, is developed. On the other hand, he admits that the existence of the fundamental organs does not necessarily mean the existence of a soul. In *R.P.* iv, d. 6, q. 4, n. 7 and *Ox.* iv, d. 6, q. 2, n. 7, where he discusses whether a two-headed freak should be baptized as two persons, he says that intellect and will are the only real evidence for soul. A freak may have a duplicity of such essential parts as the head and spine and yet be only one person; but where there is knowledge in one and not in the other or contradictory wills (as there was in a French freak), there must be two souls.

Like Pecham and Richard, the Subtle Doctor defends himself from the charge of destroying the unity of the human composite by pointing out that the subsidiary forms and the *forma corporeitatis* are only partial actualities standing in relation to the intellective form as potency to act. 'Totius compositi est unum esse et tamen includit multa esse partialia'—*Ox.* iv, d. 11, q. 3, n. 46. 'Concedo quod formale esse totius compositi est principaliter per unam formam et illa forma est qua totum compositum est hoc ens, ista autem est ultima adveniens omnibus praecedentibus; et hoc modo totum compositum dividitur in duas partes essentiales in actum proprium, scilicet ultimam formam qua est illud quod est, et propriam potentiam illius actus quae includit materiam propriam cum omnibus formis praecedentibus. Et isto modo concedo quod esse illud totale est completive ab una forma quae dat toti illud quod est, sed ex hoc non sequitur quod in toto includatur praecise una forma vel quin in toto includantur plures formae, non tanquam specifice constituentes illud compositum, sed tanquam quaedam inclusa in potentiali istius compositi'—*Ox. ibid.* Hence Scotus concludes, 'Non est inconveniens eandem formam informare duo subiecta habentia contrarias formas, ut patet de anima intellectiva informante plures partes organicas quae, ut existimo, habent formas diversas'—*R.P.* i, d. 26, q. 3, n. 9, ad 2m. The unity of the composite would be destroyed only if two ultimate forms had been proposed. 'Plures formae similes sub gradu imperfecto non repugnant, sicut repugnarent sub esse perfecto, patet de frigido ac calido et tepido'[1]—*Ox.* ii, d. 18, n. 12; *R.P.* i, d. 5, q. 2, n. 11; *Met.* vii, q. 20, n. 6.

Whether Scotus follows Pecham and Richard in regarding the vegetative and sensitive souls as well as the *forma corporeitatis* and its subsidiary forms as part of the matter of the intellective soul is difficult to decide. Two passages seem to suggest that he does. Thus in *R.P.* ii, d. 3, q. 2, n. 12 he writes, 'De vegetativa et sensitiva patet quia istae sunt species subordinatae et una perfecte continet aliam, tamen dico quod trigonum non est in tetragono nisi potentialiter tantum': and in *Ox.* ii, d. 15, n. 6, 'Dico quod elementa . . . manent in mixto sicut si diceretur quod sensitiva et vegetativa manent in intellectiva,' and we have seen on p. 309 that the elements remain virtually in a mixture. On the other hand, certain other passages imply that these lower forms are given at the same time as the intellective form from which they are only formally distinct. Thus in *R.P.* ii, d. 12, q. 8, n. 8, after saying that the positive entity in a composite is formally distinct but yet really inseparable from the specific nature, Scotus continues, 'anima sensitiva tua est prius natura quam sit formalitas intellectiva, et tamen contradictio est tuam sensitivam manere sine intellectiva.' Again, 'Intellectiva continet perfecte et formaliter vegetativam et sensitivam per se et non sub ratione destruente rationem vegetativae et sensitivae sed sub ratione perfectiori quam illae formae habeantur sine intellectiva' (i. e. in brute souls)—*Ox.* iv, d. 11, q. 3, n. 37; *Ox.* ii, d. 1, q. 5, n. 5 and cf. *Ox.* iv, d. 45, q. 1, n. 9.

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[1] It follows, then, that neither Richard nor Scotus offend against the assertion of the Council of Vienne that the intellect is *per se et essentialiter* the form of the body.

These lower souls,[1] Scotus tells us, are readily acknowledged to be the form of the body, but as far as the rational soul is concerned there is not so much evidence for its being such a form; in fact, Averroes, one of the greatest philosophers, has denied it—*R.P.* iv, d. 43, q. 2, n. 6. However, if we observe ourselves closely, we come to realize that thought is an activity not dependent on an organ and that there is some more universal and extensive knowledge than that of the senses as well as a power of reflexion by which we can know an *ens rationis*. From these considerations we have to conclude that there must be in man something receptive of such intellection, and this is the rational soul—*R.P. ibid.*, n. 7 and 9; *Ox.* iv, d. 43, q. 2, n. 5–11. If we regard this soul as one for all men, we fall into one of the vilest and most irrational of philosophical errors which leads to the destruction of all higher knowledge, of all free-will and virtue, and to the unforgivable sin of undermining the dignity of man—*R.P. ibid.*, n. 6; *Ox. ibid.*, n. 26. Indeed, in his desire to avoid this last fault, Scotus even goes so far as to say that the soul is of the same species as the angels. 'Anima non est proprie species, sed pars speciei'—*Ox.* ii, d. 1, q. 5. n. 5.

A second indication of the intellective soul is the power of choice that we experience in ourselves. Such an indetermination could not be ascribed to an organic appetite, for this will always accept what is agreeable. Hence we must assume an intellective soul as the source of such a power—*Ox.* iv, d. 43, q. 2, n. 12.

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[1] The opinions of Scotus on the operations of the vegetative and sensitive souls are given in detail by H. Klug in 'Die Lehre des sel. Johannes Duns Skotus über die Seele' in *Phil. Jahrb.*, 1923, Hft. 4, p. 198 f.

Let us consider now this intellective form as an entity abstracted from body. As far as its origin is concerned, Scotus naturally holds that it is created, and created as soon as the *forma corporeitatis* is induced in the embryo. There would be no point in positing its existence before the body, since apart from the body the soul is imperfect and no work of creation can be imperfect—*Ox.* ii, d. 17, q. 1, n. 4. Its creation is known only by faith (*Ox.* i, d. 1, q. 1, n. 4) and may be supported by another article of faith, namely, its incorruptibility, for nothing can be incorruptible *simpliciter* if it is the term of a natural agent or educed from matter—*Ox.* iv, d. 43, q. 2, n. 19; *R.P.* iv, d. 1, q. 1, n. 13.

For the immortality of the soul we have only 'rationes probabiles non tamen demonstrativae, imo nec necessariae', as Aristotle's hesitation about the problem shows—*Ox.* iv, d. 43, q. 2, n. 16. All the so-called proofs really amount to nothing more than possible persuasions, and while it would be unreasonable to suppose that our striving after knowledge and virtue ends with death, faith alone assures us of immortality—*Ox. ibid.*, n. 26, and *ibid.*, d. 45, q. 1, n. 4.

Some, relying on Aristotle's 1 *De Anima*[1] where it is said that an organic power is not corrupted when its organ is corrupted, argue that since the intellect does not depend entirely on the body for its operations, it will still operate when the body is destroyed. To this Scotus objects that we should only conclude that the soul, like the organic potencies, is not prevented from operating when its organ is destroyed. Secondly, because the soul is immaterial and therefore lacks matter, the principle of being and not-being, it should not be concluded that it is necessarily incorruptible, else the form of fire, which lacks matter, will be incorruptible. Thirdly, it has been argued that the rational soul is a form *per se subsistens* and therefore has an independent being in virtue of which it can exist apart from the body.[2] But this argument is of little value, because the form of fire has a similar independent being and yet is unable to exist apart from matter. The independent being of the soul need not mean self-subsistence but only that the soul is not an accident or not dependent on the body as its matter. Fourthly, it cannot be argued that the soul is immortal because we desire incorruptibility and our desires are not in vain. This desire is only a natural inclination and not a conscious elicited act, for unless we know that immortality is possible, we cannot have any real desire for it. Further, man's shrinking from death cannot imply incorruptibility, because animals fear death and they are mortal. Fifthly, man's longing for happiness and the fact that he does not obtain it on earth cannot be used as an argument for immortality. Man longs only for happiness in general and not for the sight of God which can be enjoyed only in a future life. Besides, the end and happiness of man may be, as Aristotle says, simply speculation. Lastly, justice does not demand a future life in which the good will be rewarded and the sinners punished, for firstly, as Augustine in I *Conf.* c. 12 [1] remarks, sin is its own punishment, and secondly, the reason does not know naturally that there is a judge who acts according to retributive and punitive laws—*Ox.* iv, d. 43, q. 2, n. 17 f.; *R.P.* iv, d. 43, q. 2, n. 13 f.

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[1] i, S. 3, c. 3, f. 121^{r}a.

[2] Cf. St. Thomas, *S. Theol.* i, q. 75, a. 6.

Let us turn now to the question whether there is matter in the soul considered as abstracted from body? Scotus, unlike his predecessors, gives no definite answer to this question. Certainly, he allows to the soul a passive element by which it is able to receive existence and to change and undergo experience; but from this, it must not be concluded, as Minges does,[2] that he ascribes a hylomorphic composition to spiritual beings, for though he regards matter as passivity, he does not say that all passivity is matter.

The most important passages that seem to reject a spiritual matter in the soul are—*R.P.* ii, d. 16, n. 7: 'Essentia animae in se est simplex'; *Ox.* ii, d. 16, n. 15: 'Una essentia simplex animae'; *R.P.* iii, d. 22, n. 12 (where he explains what he understands by simple beings): 'Sunt quaedam entia causata a causis intrinsecis pluribus, ut composita, et quaedam non, ut entia simplicia, quae tamen habent causam formalem, non materialem'; *Ox.* iii, d. 22, n. 15: 'Similiter "materiam" aliquando accipit ibi, ut non contractam per aliquid adveniens sibi, sed solam ut est principium potentiale eius cuius est, et sic accipiendo "materiam", materia est pars quidditatis in compositis materialibus'; *Ox.* ii, d. 3, q. 7, n. 4: 'Animae intellectivae distinguuntur numero in eadem specie et tamen sunt formae purae, licet perfectivae materiae; igitur non est impossibilitas a parte formarum quod distinguantur numero in eadem specie.' Lastly, in *Met.* vii, q. 13, n. 14: 'Agens primum potest producere multa individua sine materia' (though here we cannot say whether Scotus is referring to the absolute or to the ordained power of God (cf. p. 447, n. 1).[1]

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[1] *Ibid., P.L.* 32: 670.

[2] *Der angebliche exzessive Realismus des Duns Skotus*, Münster 1908 (*Beiträge* series, Bd. 7, p. 11 f.). Here he uses the spurious *De Rerum Principio* which definitely teaches the existence of matter in the soul, though in a previous work, *Ist Duns Skotus Indeterminist?* München 1905 (*Beiträge* series, Bd. 5, p. ix), he doubted its genuineness.

The only passage that might seem to allow the existence of matter in the soul is *R.P.* ii, d. 12, q. 2, n. 12: 'Esto quod immaterialis esset causa quare aliquid est naturae intellectualis, quod non credo etc.', but here Scotus may intend merely that matter and intellectuality are not inconsistent. In every passage where he speaks of matter in the soul it is either as an objection raised against some of his own doctrines or as an opinion 'secundum aliquos'.

It looks, then, as if Scotus preferred Aristotle's biological conception of the soul to that of his predecessors which regarded the soul as a true substance composed of matter and form. Nevertheless, when he speaks of the separated soul, he stands opposed to Aristotle by stressing its independence, and likewise when he denies that, as the form of the body, the soul receives perfection from its matter. 'Anima autem est forma corporis et non materia, ideo ipsa non recipit perfectionem in toto et per consequens ipsa in se aeque est perfecta separata et coniuncta'—*R.P.* iv, d. 43, q. 2, n. 22, 23, and 30. This opinion may exalt the dignity of the soul, but it is difficult to see what is the purpose of its union with body, and certainly it is an opinion not supported by the general epistemological teaching of Scotus.

Similarly his doctrine of the individuation of the soul shows a great departure from Aristotle. That the body, as matter, could not individuate is clear from his objections against matter as the principle of individuation (cf. p. 302) and also from the passage in *Quodl.* ii, q. 5 which runs, 'distinctae sunt istae animae prius natura quam uniantur materiae, non ergo per se et primo distinguuntur sua materia'. That an *inclinatio ad corpus* could not individuate the soul follows from his denial that accidents individuate—*Quodl. ibid.*, n. 6. Consequently, it appears that the soul, like other beings, bears within itself its individuating principle. 'Animae intellectivae distinguuntur numero in eadem specie et tamen sunt formae purae, licet perfectivae materiae, igitur non est impossibilitas a parte formarum quod distinguantur numero in eadem specie'—*Ox.* ii, d. 3, q. 7, n. 4.

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[1] The passages clearly denying corporeal matter are *Ox.* i, d. 3, q. 7, n. 41; *R.P.* ii, d. 17, q. 1, n. 3; *Quodl.* ix, n. 8 and 12.

Our next question concerns the relation of the faculties to the essence of the soul. Scotus agrees with his predecessors that they cannot be really distinct from it. To hold that they are compromises the unity of the soul, violates the most fundamental principle of philosophy by unnecessarily multiplying entities, and leaves a loop-hole for Averroes's single active intellect for all men—cf. *Ox.* iv, d. 43, q. 2, n. 26; *R.P.* iv, d. 43, q. 2, n. 6. Such a theory argues that if the potencies are not distinct, the soul according to its essence is the immediate principle of operation, and so, being an act, it must always be active. Against this Scotus urges that *actus primus* and *actus secundus* should not be confused. The only thing involved in saying that the soul is an *actus* is the assertion that it is always in act but not that it is always active. 'Non enim sequitur: Anima secundum suam essentiam est actus; igitur habens ipsam semper operatur vel potest operari semper; sed bene sequitur: ergo semper est in actu; nec est simile de dare vitam et operari, quod scilicet, sicut est principium vivendi per essentiam, ita est principium operandi per essentiam etc.; quia anima est principium formale quo vivum est vivum; quia ipsa formaliter dat esse vivum; sed anima est principium operationis, secundum quod reducta ad genus causae efficientis, et sicut ars se habet ad effectum scilicet in genere principii effectivi; est igitur ibi aequivocatio quantum ad immediationem. Uno enim modo est sic et alio modo non sic. Est enim anima immediatum principium formale essendi et immediatum principium operandi, sed non similiter se habet ad causam formalem et ad effectivam, non enim oportet quod habens formam sit semper in actu secundo'—*Ox.* ii, d. 16, n. 6.

A second consideration offered by the supporters of the real distinction theory is the variation of potencies according to individuals and the impossibility of substance being received more or less. To this Scotus objects that the degree of reason, for example, does not lie in the potency itself but only in its *habilitates* (i. e. in its skill and dexterity), and that, therefore, a potency in the second species of quality can be received *magis et minus*. Moreover, he adds, that which is not received immediately in a substance cannot form its proper operation, and so if the intellect and the will are other than the essence of the soul, to see and to delight in God is not immediately received into that essence. Indeed these potencies, being separate from the essence as quantity from its subject, could be separately perfected by the beatific vision and thus, as accidents, would be formally beatified and the soul only *per accidens*—*R.P.* ii, d. 16, n. 15 and 21; *Ox.* ii, d. 16, n. 22.

Clearly, there is no good reason for holding the real distinction theory; it is much better to advocate a view that safeguards that unity of the soul to which experience and consciousness testify, and which Augustine supports in his *De Trin.* 5 [1] where he says, 'potentiae sunt una essentia et una substantia'—*Ox. ibid.*, n. 21. Besides, does not nature work by the best possible method without employing many instruments where one will suffice? And will not the nobility of the soul be brought out by its power to act diversely through one essence? If inferior forms, such as heat and other active qualities, can act immediately (if these do not, they would have to act through other accidents and so we get an infinite regress), the soul must be able to do so—*Ox. ibid.*, n. 15 and 16; *R.P. ibid.*, n. 14.

It looks, then, as if Scotus believes that the whole soul functions in any act and that its act and, therefore, its potencies can be distinguished only by objects. But he admits this only in the sense that through a difference of objects a difference of acts is revealed, and through different acts we know that there are different potencies. A difference of acts, however, does not constitute a difference of potencies, since acts are posterior to potencies. 'Actus distinguuntur per obiecta quantum ad manifestationem, quia manifestior est distinctio obiectorum quam actuum, et ex illa tamquam ex manifestiori innotescit illa. . . .

[1] Cf. Lib. x, c. 11, *P.L.* 42: 983.

Actus est essentialiter posterior potentia, et posterior non est per se ratio distinguendi prius; igitur nec ibi illud aliud, scilicet de obiectis in comparatione ad actus, debet intelligi de distinctione essentiali. . . . Actus distinguuntur per obiecta, sicut per aliqua extrinseca, a quibus actus dependent dependentia essentiali et propria, non tamen distinguuntur per illa sicut per formalia distinctiva'—*Quodl.* xiii, n. 30; *Met.* ix, q. 5, n. 5 and 9; *Ox.* iii, d. 14, q. 2, n. 6.

Objects could only validly distinguish potencies if they were adequate to the unlimited powers of the potencies, an example of which is the applicability of sight to many colours. Further, potencies, other than organic ones, cannot be distinguished by objects, for often different potencies, e. g. the appetitive and the cognoscitive, stand in relation to the same object, and especially is this true for the intellect and the will of the beatified soul—*Met.* ix, q. 5, n. 7; *Ox.* ii, d. 24, n. 6 and *ibid.*, iii, d. 14, q. 2, n. 6.

Yet, if different objects do not distinguish the potencies and there is no real distinction between them and the essence, this does not mean that they are only logically distinct, for then the soul would act in the same manner as God; and apart from that inconvenience, it is against those authorities (unnamed) who declare, 'potentia exeunt et quod fluunt ab essentia'—*Ox.* ii, d. 16, n. 17. Scotus's opinion is that there is a sense in which the potencies are the same as the essence and a sense in which they are not. 'Dico quod anima non est totaliter idem formaliter potentiae, nec tota perfectio animae explicatur per unam potentiam, ideo quantum ad aliquid est simile et quantum ad aliquid non'—*R.P.* ii, d. 16, n. 20; *Ox. ibid.*, n. 18. His position is stated at length in *R.P. ibid.*, n. 18 and 19, 'Dico quod potentiae non sunt res alia, sed sunt unitive contentae in essentia animae. De continentia unitiva loquitur Dionys. 5 *De Div. Nom.*[1] quia continentia unitiva non est omnino eiusdem, ita quod idem omnino contineat se unitive, nec etiam omnino distincti, requirit igitur unitatem et distinctionem . . . similiter non sunt potentiae idem formaliter vel quidditative, nec inter se, nec etiam cum essentia animae, nec tamen sunt res aliae, sed idem identitate. Ideo talia habent talem distinctionem secundum rationes formales qualem haberent realem distinctionem, si essent res aliae realiter distinctae. Principium igitur volendi et intelligendi immediatum est in secundo instanti naturae, et illa principia sunt unitive in essentia animae quae est in primo instanti naturae quasi unitive contentae'—cf. *Ox.* ii, d. 16, n. 18 and 19; *Met.* ix, q. 5, n. 5.

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[1] *Ibid.*, *Opera*, Argentina 1502, f. 228^{v}.

His doctrine is, then, that the potencies are inseparable and, therefore, one with the soul as an *actus primus*, but when the soul is considered as an *actus secundus* or as operative they are different, because the whole nature of the soul is not exhausted in any one potency and because the action of one potency, e.g. the intellect, does not include the action of another, e.g. will—*R.P.* i, d. 33, q. 2, n. 13.

This being the view of the Subtle Doctor, he may well suppose that all other partially right views are summed up in his own. 'Secundum istam viam possunt salvari omnes auctoritates illae quae dicunt quod huiusmodi potentiae egrediuntur ab essentia animae ut quaedam virtutes, item quod sunt mediae inter formas substantiales et accidentales, quia sunt quasi passiones animae, et passio egreditur a subiecto vel ebullit; sunt tamen idem essentiae animae, ut dictum est, et possunt etiam dici partes, secundum quod nulla dicit totam perfectionem essentiae continentis, sed quasi partialem. Similiter isto modo facile est concipere quod una potentia non continet perfectiones omnium nec totam perfectionem ipsius animae, licet sit eadem res propter distinctionem formalem. Unde sic contenta non continent se mutuo, quia sunt distincta formaliter et inter se a continente primo, cui idem realiter; unde duo contenta inter se distinguuntur et respectu tertii sunt idem realiter'—*Ox. ibid.*, n. 19.

In what sense will this theory of the soul and its potencies bear out that analogy with the Trinity which angels and souls have over and above being vestiges of God? While the soul has a unity of essence like the Trinity, the formal distinction of its potencies is less representative of the multiplicity of Persons in the Trinity. Indeed, only when acting do the potencies tend to attain some of that real diversity found in the Divine Persons. Hence in raising this problem Scotus slightly modifies his view of the potencies saying, 'In potenciis igitur est distinctio realiter virtualiter, non formaliter; in actibus distinctio realis formalis' —*R.P. ibid.*, n. 22. Moreover, when the potencies are in action, one act comes from another 'per modum originis, sicut personae inter se originantur, sicut enim a Patre, Verbum, et ab utroque Spiritus Sanctus, sic quodammodo a memoria actus intellectus et velle ab utroque originatur'—*Ox.* ii, d. 16, q. 1, n. 20. Therefore, 'natura intellectualis, inquantum habet in se essentiam suam et operationes multas inter quas est modo originis, repraesentat Trinitatem'—*Ox.* i, d. 3, q. 5, n. 15 and *ibid.*, q. 9, n. 3 f. Again, the analogy is weak because the potencies are identical only inasmuch as they are contained in the same essence, while the Divine attributes are identical *inter se et in alio.* Similarly, every Person in God is intrinsically infinite and therefore includes *simpliciter* every perfection that is in the other Persons, but not thus does the intellect contain the will [1]—*R.P. ibid.*, n. 19.

If one were to say with Henry of Ghent [2] that the potencies according to their absolute reality are identical with the soul, but according to their relative reality really distinct, one would save the Divine image in the soul, but at the same time one would fail to appreciate the limitations of the analogy by holding that in the soul, as in God, the relation is the *principium operandi et distinguendi*—a doctrine incompatible with the created nature of the soul. 'Dico quod necesse est imaginem creatam in aliquo deficere ab increata et illud in quo deficit est quia principium operandi et distinguendi non potest esse relatio'—*Ox.* ii, d. 16, n. 14. In fact, Henry's theory errs by assuming that the activity of the soul coincides with its nature and not distinguishing between the immediate and the mediate principle of activity in the soul.

We come now to the consideration of the *operatio* of the soul. *Operatio*, which is distinguished from *actio* by being an immanent activity perfecting the agent *simpliciter*, involves intellect and will—*R.P.* iv, d. 13, q. 1, n. 6; *Ox.* i, d. 3, q. 6, n. 32. Of these we shall consider intellect firstly, since not only does it involve 'form' more immediately, but it is also naturally necessary and prior in activity to will.

In his general views of the manner in which our natural knowledge comes from the external world Scotus agrees fundamentally with his predecessors. Objects propagate their species through the medium interposed between them and our sense organs, and thereby evoke an *immutatio* in the senses—*Met.* ii, q. 1, n. 2; *Ox.* i, d. 3, q. 4, n. 11; *ibid.*, ii, d. 9, q. 2, n. 20 and 21, and *ibid.*, d. 11, q. 1, n. 4. Concerning this transmitted species, Scotus, like Bacon, makes it clear that no material particles are emitted, for he definitely says that the activity by which fire, for example, generates sense-knowledge is only equivocal or intentional, and consequently, not of the same kind as the univocal or real activity by which it burns—*Ox.* iv, d. 44, q. 3, n. 2; *Ox.* iii, d. 15, n. 6. If material particles were transmitted, sense could not receive form without matter and hence would not retain its proper function of apprehending contraries—*R.P.* iv, d. 44, q. 3, n. 14. Therefore, it must be concluded that the transmitted species is only an image of the object—*Ox.* ii, d. 3, q. 9, n. 14; *Quodl.* xiii, n. 32. Concerning the *immutatio* evoked by this transmitted species, Scotus claims that it implies a reaction of the perceiver on the species received into the sense-organ[1]—*Ox.* i, d. 3, q. 7, n. 7 f. and 20 f.; *Quodl.* xiv, n. 26; and that in this reaction the *sensus communis* plays a large part by combining the reports of the five senses and enabling the perceiver to know that he is perceiving [2]—*R.P.* ii, d. 13, n. 3; *Ox.* iv, d. 47, q. 1, n. 3; *Quodl. ibid.* From the reaction results the phantasm or *similitudo*, which is a more perfect image than that in the medium (*Ox.* i, d. 3, q. 7, n. 24). Of it we can say (*a*) it is not of the same nature as that which is in the medium, else in the case of sight, the medium would be *formaliter visio*—*Ox. ibid.*, n. 18, (*b*) it is not what is known but that by which sense comes into contact with the object; hence it is sometimes called 'intentio'—*R.P.* ii, d. 13, n. 4; *Quodl.* xiv, n. 26; *Met.* vii, q. 14, n. 5, and (*c*) it has an 'esse diminutum et secundum quid' as compared to the 'esse simpliciter et reale' of the external object that propagates it [1]—*Ox.* iv, d. 1, q. 1, n. 21; *R.P.* ii, d. 3, q. 3, n. 11.

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[1] Throughout the discussion Scotus ignores memory. The following passage is noteworthy, 'Hic est modus dicendi quod intellectus et voluntas sunt duae potentiae realiter distinctae inter se et ab essentia animae (de memoria modo non loquor), passiones enim animae sunt illae duae potentiae etc.'—*Ox.* ii, d. 16, q. 1, n. 3.

[2] *Quodl.* iii, q. 14.

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[1] Although the activity of the soul in cognition had been always a doctrine of the Franciscan school adopted from Augustine, it was especially stressed by Scotus in his opposition to Geoffrey of Fontaines, who over-emphasized the causality of the *species sensibiles*. Cf. M. De Wulf, 'L'intellectualisme de Godefroid de Fontaines, &c.' in *Festgabe f. Cl. Baeumker*, Münster 1913, p. 287 f.

[2] Other interior senses that may enter into sensation are (1) the imagination, which stores up the images received through all the senses and sometimes combines them into new formations—*Ox.* i, d. 3, q. 2, n. 18; *Ox.* iii, d. 17, n. 2, (2) the *vis aestimativa*, an animal instinct, which recognizes the harmless or dangerous character of the object perceived—*Ox.* i, d. 3, q. 2, n. 18; *Quodl.* xxi, n. 10, and (3) sense memory, the power by which the sensitive soul retains a sensation but without recognizing it as the reproduction of a past event—*Ox.* iv, d. 45, q. 3, n. 8–12; *R.P.* iv, d. 45, q. 3, n. 5 f. (There seems to be no distinction between sense memory and imagination in Scotus. So too in Bonaventura—cf. E. Gilson, *La Philosophie de S. Bonaventure*, Paris 1924, p. 345.)

The phantasm represents its object *sub ratione singularis* (*Ox.* i, d. 3, q. 6, n. 5), but also, because it is a true image of the object, it contains within itself a potential universal that corresponds to the specific nature in things and requires to be actualized before man can possess that knowledge which distinguishes him from the animals—*Ox. ibid.*, q. 7, n. 25 and iv, d. 43, q. 2, n. 7. This actualization necessitates the action of the possible and the active intellects, the latter illuminating the potential universal and the former assimilating it and, as a result, possessing a *species intelligibilis* that represents the object *sub ratione universalis*—*Ox.* i, d. 3, q. 6, n. 5 and 8; *Quodl.* xv, n. 16. Because of this abstracting process involved in all higher knowledge, Scotus writes, 'Scientia realiter refertur ad scibile non tantum ut consideratur ab intellectu'—*Ox.* i, d. 30, q. 2, n. 10. Were the potential universal not in things, we could no more abstract something common from Socrates and Plato than from Socrates and a line; neither would there be any real univocal generation, e.g. fire from fire, but only an imagined one—*Ox.* ii, d. 3, q. 1, n. 6 (cf. also p. 297).

In this process, as we have said, the passive and the active intellects are involved. As regards the former, the chief contribution of Scotus seems to be his theory that it, like the active intellect, must possess some activity,[2] for otherwise, the active intellect has to produce intellection in addition to illuminating the potential universal—*Quodl.* xv, n. 13 f.; *Ox.* i, d. 3, q. 7, n. 38.

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[1] For a full account of Scotus's theory of sense knowledge cf. H. Klug, 'Die sinnliche Erkenntnis nach dem sel. Joh. Duns Skotus' in *Franz. Stud.*, 1924, p. 237 f.

[2] St. Thomas (*S. Theol.* i, q. 77, a. 3 and q. 79, a. 4, ad 4 and a. 7) denies this, but Bonaventura seems to have something like it—'Nec intellectus possibilis est pure passivus; habet enim supra speciem existentem in phantasmate se convertere, et convertendo per auxilium intellectus agentis illam suscipere, et de ea iudicare. Similiter nec intellectus agens est omnino in actu; non enim potest intelligere aliud a se nisi adiuvetur a specie, quae abstracta a phantasmate intellectui habet uniri'—II *Sent.* 24, i, 2, 4, Concl., vol. ii, p. 569, and *ibid.*, ad 5^m^, p. 571.

As regards the latter, Scotus agrees with Richard in conceiving it not as some separate intellect functioning in all men, or as God, but as an intrinsic part of each rational soul. As such it is not merely logically distinct from the passive intellect, but formally distinct (cf. pp. 353, 356). 'Cum dicitur: Intellectus agens et possibilis non distinguuntur nisi per comparationem ad phantasmata; falsum est; imo distinguuntur *inter se* formaliter, vel etiam *extrinsece* per comparationem ad obiecta, vel ad illa, in quibus obiecta relucent'—*Ox.* ii, d. 3, q. 11, n. 5.

If the active intellect were identified with God, we should be admitting the theory of Divine illumination—a theory meant to give certitude in face of the perpetual change of objects by proposing that truth lies in the perception of the conformity of objects with their Divine exemplars. But such a theory overlooks the fact that we cannot perceive the conformity because the Divine exemplars are unknown to us—*Ox.* i, d. 3, q. 4, n. 13 and 16; and secondly, it implies the direct co-operation of God in our knowing and therefore undermines the autonomy of the intellect—*ibid.*, n. 17. In reality, as Aristotle in 2 *Met.*[1] and Augustine in 15 *De Trin.* c. 12 [2] maintain, the intellect of itself from the materials of sense experience can arrive naturally at certain and infallible truth—*ibid.*, n. 5 and 6: hence, Augustine's theory of infallible truth being seen *in regulis aeternis* must have another meaning than that usually given to it. 'Et quod proprie posset dici intellectum nostrum videre in luce aeterna, quia lux est causa obiecti, apparet per simile, quia proprie dicimur intelligere in lumine intellectus agentis, cum tamen illud lumen non sit nisi causa activa, scilicet vel faciens obiectum in actu, vel virtute cuius obiectum movet, vel utrumque. Ista igitur duplex causalitas intellectus divini, qui est vera lux increata, videlicet, quod producit obiecta secundaria in esse intelligibili, et quod est illud, virtute cuius obiecta secundaria, etiam producta, movent actualiter intellectum, potest quasi integrare unum tertium membrum de causa propter quam dicamur vere videre in luce aeterna'—*Ox. ibid.*, n. 19; *ibid.*, d. 36, n. 10; *Ox.* iii, d. 24, n. 21; *R.P.* iv, d. 45, q. 2, n. 11.

It must be concluded, then, that universals are the immediate gifts of experience, requiring for their elicitation neither a direct Divine co-operation nor '*a priori*' mental forms—cf. *R.P.* ii,

[1] ii, S. 1, c. 1, f. 14rb.

[2] *Ibid.*, *P.L.* 42: 1075.

d. 23, n. 3; *Ox.* i, d. 3, q. 2, n. 8; *Met.* i, q. 4, n. 8. Once elicited, they are organized by the intellect into judgements and scientific conclusions, a process in which the possibility of error arises. This possibility applies not to the categories and the first principles that emerge by the normal activity of our faculties in this organizing process (*Met.* i, q. 4, n. 4 and 5; ii, q. 1, n. 2; *R.P.* ii, d. 23, n. 3), but, like the possibility of certainty, to induction proper,[1] which necessitates repetition of experiences and a further comparison and analysis before we can arrive at a general law that shall be free from coincidences and confusions of condition with cause—*Met.* i, q. 4, n. 14 and 17 f.; *Ox.* iii, d. 24, n. 19.

To ascertain the essential cause of a thing, and thereby to gain true knowledge (*Ox. ibid.*, n. 13), we must first isolate that thing with its possible causes, and then observe which of these causes when separately given produce the effect, and also which one's absence fails to produce the effect, that is to say, we must employ the methods of agreement and difference—cf. *Met. ibid.*, n. 17 and 18. 'De cognitis per experientiam dico quod, licet experientia non habeatur de omnibus singularibus sed de pluribus, nec quod semper sed quod pluries, tamen expertus infallibiliter novit quod ita est et quod semper et in omnibus; et hoc per istam propositionem quiescentem in anima: "quidquid evenit ut in pluribus ab aliqua causa non libera, est effectus naturalis illius causae"'—*Ox.* i, d. 3, q. 4, n. 9. Given sufficiently repeated experience, induction must be valid because nature is ruled by a principle of uniformity: 'Natura determinatur ad unum, non quidem ad unum producibile, unum, inquam, numero sive singulare; sed determinatur ad unum determinatum modum producendi, quia non est ibi principium indeterminatum respectu oppositorum, sicut est voluntas'—*Quodl.* ii, n. 10.

So far, it has been noted that we possess firstly a confused perception of the singular, and secondly, a knowledge of universals; but as neither of these represent a thing 'sub propria ratione', Scotus with his predecessors declares that we have also a certain intuitive knowledge of singulars as they actually exist and not merely a knowledge acquired by reflexion on the

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[1] Cf. P. Raymond, 'La Théorie de l'induction. Duns Scot precurseur de Bacon' in *Études Franciscaines*, 1909, pp. 113 f., 270 f.

phantasm. 'Omnis intellectio abstractiva et non intuitiva est aliquo modo imperfecta; cognitio autem intuitiva est obiecti ut obiectum est praesens in existentia actuali'—*Ox.* i, d. 2, q. 7, n. 42; *Met.* vii, q. 15, n. 4; *R.P.* iv, d. 10, q. 9, n. 4.

When it is said that sense knows the singular, Scotus understands that sense knows something other than, and previous to, the universal, but he does not suppose that sense-knowledge exhausts singularity. 'Sensus non sentit obiectum suum, ut est hoc numero; sensus enim visus non sentit albedinem, ut est haec numeralis, quia si sic, discerneret hanc albedinem a qualibet quia non est haec . . . sensus non per se sentit singulare, tamen sentit naturam extra animam primo, sed ut coniunctam singularitati necessario'—*R.P.* ii, d. 12, q. 5, n. 10. In fact, he writes, 'Dico quod primum actualiter cognitum confuse est species specialissima cuius singulare efficacius et fortius primo movet sensum . . . et hoc supposito quod singulare non possit intelligi sub propria ratione, de quo alias'—*Ox.* i, d. 3, q. 2, n. 22. Intellect, however, has a more perfect knowledge of singulars, 'Dico quod impossibilius est singulare per se sentiri quam per se intelligi, quia principium immutandi sensum non potest esse nisi natura, ut natura; igitur non immutat, ut *haec*; ideo sensus non cognoscit per se singulare, ut *hoc*. Quia si sint duo corpora in eodem loco, nullus sensus iudicabit ibi dualitatem accidentium. Esto quod illa duo sint alba; igitur solum refertur sensus per se in naturam, et non in naturam ut *haec*. . . . Si igitur nullus sensus discernit diversitatem inter duo accidentia eiusdem speciei posita in eodem ubi, proprium est sensui cognoscere singulare, hoc est, naturam communicatam, nullo modo universale: intellectus vero potest utrumque in se.

Et cum dicitur postea quod nos non distincte cognoscimus singulare; dico quod hoc est ex ordine ad phantasmata. Vel esto quod intellectus noster accipiat notitiam immediate a re, quia tamen in statu isto non potest moveri a natura, ut *haec* per se, hinc est quod non intelligimus nunc singulare directe et per se. Si tamen intellectus esset separatus ab istis impedibilibus, per se cognosceret singulare ut hoc'—*R.P.* iii, d. 14, q. 3, n. 9.

The intellect in itself, then, has the power to know singulars, as is shown by its beatification through the intellection of God, the Highest Singular—*R.P.* ii, d, 12, q. 8, n. 10. Yet in its present life being hindered by body, it can only vaguely apprehend them by grasping certain general first *intentiones* of the *haecceitas* such as numerical unity, independent existence, and incommunicability (cf. p. 306). Hence it is unable to express in definition all that is included in the essential nature of the singular, and this is what Aristotle means when he says (2 *De An.* text 60, 3 *ibid.*, text 27, 7 *Met.* text 37, and I *Phys.* text 55)[1] that the singular is not intelligible, for in itself the singular is most intelligible—*R.P.* ii, d. 12, q. 8, n. 10; *Ox.* ii, d. 3, q. 6, n. 17; *Met.* vii, q. 13, n. 23. With our present constitution *scientia* or knowledge by universals seems more perfect because its validity does not cease with the existence of the particular (*R.P.* ii, d. 3, q. 3, n. 10), but, in reality, an intuitive knowledge of singulars, the only type possessed by God, is more perfect, because it enables us to see a thing face to face in its completeness and to grasp to some extent its intrinsic modes of being and its *ratio singularitatis* which cannot be understood through its *ratio universalis*[2]—cf. *De Primo* iv, n. 17.

The limitation in our present knowledge of singulars also involves an inadequate knowledge of substance, as is shown by our inability to grasp the substantial change in the Sacrament of the Altar—*R.P.* i, d. 22, n. 8 and 9. Yet unless we are ready to admit that all our knowledge is of accidents, we must suppose that we have some knowledge of substance—*R.P.*, *ibid.* But since Scotus holds that only accidents produce phantasms, substance not being *per se sensibilis* (*Ox.* i, d. 3, q. 3, n. 9), we are left to conclude that our imperfect knowledge of substance comes in some way through our intuitive knowledge of singulars which involve in their composition both substances and accidents or indirectly through our knowledge of accidents.

The complete understanding of substance and accidents is not of such great importance for the Subtle Doctor since he regards them primarily as a basis for abstracting a univocal concept of *ens in se*. 'Cum enim substantia non immutet immediate intellectum nostrum ad aliquam intellectionem sui, sed tantum accidens sensibile, sequitur quod nullum conceptum quidditativum habere poterimus de ea, nisi sit aliquis talis qui possit abstrahi a conceptu accidentis. Sed nullus talis quidditativus abstrahibilis est a conceptu accidentis nisi conceptus entis'—*Ox.* i, d. 3, q. 3, n. 9. If it is claimed that our turning to phantasms signifies that material things are the first objects of our understanding,[1] Scotus replies that they are first only in the chronological order and because God has ordained for this life a conformity or a *proportio motivi et mobilis* between the activity of the intellective power and that of the sense object, but not because potency and object are assimilated *in modo essendi*; in fact, there must be some dissimilarity, since they are related as potency and act [2]—*Ox. ibid.*, q. 3, n. 4 and 24 and q. 6, n. 27 f.; *Met.* ii, q. 3, n. 16.

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[1] ii *De An.*, S. 4, c. 1, f. 138^{v}a and *ibid.*, iii, S. 1, c. 4, f. 173^{r}a; *Met.* vii, S. 2, c. 13, f. 89^{r}a, and *Phys.* i, S. 3, c. 1, f. 15^{r}a.

[2] On p. 229 we have remarked on Richard's inconsistency in proclaiming a knowledge of singulars and at the same time conceiving singularity as a negation. Scotus escapes this inconsistency by the positive entity of his *haecceitas*.

Were material quiddities the first objects in the sense of being the proper objects of understanding, what would become of Metaphysics, the most fundamental science? If Metaphysics studies being as such, then the first proper and adequate object of our intellect is neither material quiddity nor being as enveloped in any modality, such as '*sub ratione veri*', but *ens in se.*[3] 'Quidquid per se cognoscitur communius sensibili, per se intelligitur ab intellectu nostro, alias Metaphysica non esset magis scientia transcendens quam Physica; ergo non potest aliquid esse primum obiectum intellectus nostri quod sit particularius ente, quia tunc ens in se nullo modo intelligeretur a nobis'—*Ox.* i, d. 3, q. 3, n. 3 and 20. 'Dico quod ens est primum obiectum intellectus nostri . . . nam omne per se intelligibile aut includit essentialiter rationem entis, vel continetur virtualiter vel essentialiter in includente essentialiter rationem entis. Omnia enim genera et species et individua et omnes partes essentiales generum et ens increatum includunt ens quidditative. Omnes differentiae ultimae includuntur in aliquibus istorum essentialiter vel quidditative. Omnes passiones entis includuntur in ente, et in suis inferioribus virtualiter; igitur illa quibus ens non est univocum in *quid*, includuntur in illis quibus ens est sic univocum'—*ibid.*, n. 8; *Met.* ii, q. 3, n. 21; *Quodl.* xiv, n. 12 and 13; *Ox.* iv, d. 49, q. 8, n. 6.

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[1] Cf. St. Thomas, *S. Theol.* i, q. 5, a. 2, q. 12, a. 4, and q. 84, a. 7.

[2] In *Met.* ii, q. 3, n. 16 Scotus remarks that if the proportion between intellect and object be pushed too far, it will mean that an angel cannot know the quiddity of material substances. On the other hand, in God there is the utmost similarity between potency and object.

[3] So too Bonaventura, cf. Gilson, *op. cit.*, p. 381.

Because intellect has for its object all being, it can elevate itself to immaterial natures, though, in their case, to the natural defect in our knowledge arising from the influence of the body is added a further disadvantage due to the excellence of the object disturbing the necessary proportion between knower and known—*Ox.* iv, d. 49, q. 11, n. 3 and 11; *R.P.* i, d. 36, q. 2, n. 8. Of these immaterial natures we have no intuitive or immediate cognition, not even in the case of our own soul, with which we are naturally most intimately acquainted. We know only by means of species—a necessity brought upon the soul by sin, as is held by Averroes, Lincolniensis, i.e. Grosseteste (*Comm.* on 6 *Eth.*),[1] and Augustine (15 *De Trin.* c. ult).[2] If Augustine says of the soul 'anima novit semper se',[3] he does not mean this literally, but only that the soul is intelligible of itself and always present to itself[4]—*Ox.* ii, d. 3, q. 8, n. 13; *R.P.* ii, d. 3, q. 3, n. 14.

Concerning our knowledge of God, Scotus denies that it can be either innate or self-evident. John Damascene in lib. 1, c. 1 and 2[5] seems to support an innate knowledge, but in point of fact he intends to say only that we have a natural capacity by which we are able to know in a general way the existence of God—*Ox.* i, d. 2, q. 2, n. 8. Secondly, God's existence cannot be a self-evident proposition because the terms of such a proposition must have in themselves the grounds of its evidence and must themselves be known distinctly; but of the terms 'esse' and 'essentia divina' the latter is certainly not distinctly known by man—*Ox. ibid.*, n. 3 f.; *ibid.*, q. 3, n. 16; *Quodl.* xiv, n. 10.

The existence of God for Scotus, as for Richard, can be arrived at only *a posteriori* or by a *demonstratio quia* resting on a consideration of the contingency and the mutability of creatures. Because creatures can neither arise out of nothing nor cause themselves, we have to posit a necessary first efficient nature; otherwise we must suppose that efficient causes that stand in essential relation can proceed *ad infinitum* or else that their order is circular—*Ox.* i, d. 2, q. 2, n. 10 f.; *De Primo*, ii, n. 1 f. and 3, n. 1 f. The same type of objection applies to the order of finality and eminence[1]—*Ox. ibid.*, n. 17 and 18; *De Primo, ibid.*, n. 9 and 10.

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[1] On the manuscripts of this see L. Baur, *Die philosophischen Werke des Grosseteste*, Münster 1912, p. 24 f., and A. Pelzer, 'Les Versions latines des ouvrages de Morale conservés sous le nom d'Aristote en usage au XIII^{e} siecle' in *Revue néoscolastique*, 1921, p. 378 f.

[2] Cf. *ibid.*, c. 27, *P.L.* 42: 1097. Bonaventura holds that for spiritual beings and such transcendental notions as truth, goodness, love, &c., we have pure ideas without images—*Sent.* ii, d. 39, a. 1, q. 2; *Itinerarium Mentis*, c. 3, n. 2.

[3] 14 *De Trin.*, c. 14, *P.L.* 42: 1049.

[4] Cf. *ibid.*, lib. x, c. 5, and lib. xv, c. 15, *P.L.* 42: 977–1078.

[5] *Ibid.*, *P.Gr.* 94: 789–94.

After *ens*, the most fundamental attribute of God is infinity, and by infinity we mean not something vague, but the possession of all perfections or something exceeding the finite out of all proportion. 'Dico quod in divinis potest intelligi quasi infinitas extensiva, si intelligeretur quasi infinita multitudo perfectionum. Alio modo infinitas intensiva alicuius perfectionis simpliciter, ita quod illa perfectio secundum propriam rationem suam est sine limite et termino'—*Ox.* iv, d. 13, q. 1, n. 31. That infinity must be the most fundamental of all the Divine attributes follows because (1) the existence of two infinites imply contradiction[2] for they must either exist in a genus or be independent in a universe in which everything is essentially ordered, and (2) as opposed to other attributes, e. g. the highest good which might apply to a series of created goods, it speaks of the inner nature of Divinity—*De Primo*, iii, n. 6 f., iv, n. 21 and 22; *Ox.* i, d. 3, q. 2, n. 17; *Quodl.* v, n. 7.

This infinity is provable according to a *demonstrationem quia* (cf. *Ox.* i, d. 2, q. 2, n. 10) by four arguments. (*a*) As the first efficient cause God must possess *formaliter et simul* the causality of all secondary causes and this even more eminently than these causes themselves. (*b*) Because the Divine mind understands an infinity of objects and because His mind is identical with His essence, God must be infinite. (*c*) From experience we know that our will loves something greater than any finite object. Hence that infinite object must exist because, as Augustine in *De Lib. Arb.* c. 2[3] says, the will naturally hates non-being. (*d*) If the most perfect being were finite, it could be surpassed in perfection; but this is contradictory and ignores the fact that infinity is not incompatible with being[1]—*Ox.* i, d. 2, q. 2, n. 25–31; *De Primo*, iv, n. 21 f.

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[1] Scotus prefers this proof to that of the First Mover, probably because, being schooled in Franciscan dynamism, he was less prone than St. Thomas to assume that movement cannot be accepted as an ultimate feature of the universe. He also rejects Anselm's ontological proof because it neglects to inquire whether the idea of the infinite is possible—*Ox.* i, d. 2, q. 2, n. 8.

[2] Scotus here opposes the teaching of his master, William of Ware, that the natural reason cannot prove that there is only one God. Cf. Longpré, *La Philosophie du B. Duns Scot*, Paris 1924, pp. 113–14.

[3] Cf. *ibid.*, ii, c. 8, *P.L.* 32: 1281.

Instead of treating in detail the perfections included in this infinity,[2] the most intrinsic of which is intellectual life including volition (*R.P.* i, d. 35, q. 1, n. 29; *De Primo* iv, n. 5 f.), I shall pass to Scotus's rejection of the theory of analogical concepts for God and for creatures, for this rejection, which is designed to give greater validity to our natural knowledge of God, will show how entirely erroneous is the opinion that the Subtle Doctor is an agnostic.[3]

Scotus argues that if the concept of wisdom, for example, has not the same meaning for God as for creatures, it cannot be applied to Him any more than to a stone. If it is applied only 'per attributionem', we might just as well say that God is a stone. However, in truth, wisdom is said formally of God, i.e. as His peculiar nature, while the being of a stone is said only analogically of Him because He possesses the idea of stone—*Ox.* i, d. 3, q. 2, n. 10; *ibid.*, d. 8, q. 3, n. 9. Again, if we say that God is most perfect, our comparison must mean that He is most perfect in qualities which are really common to Him and to creatures, just as man is more perfect in animality than an ass though not more perfect in humanity—*Ox.* i, d. 8, q. 3, n. 13; *Quodl.* iii, n. 2–5.

This necessity for univocal concepts is worked out particularly in regard to the concept of being. The concept of being which we have for God cannot be distinguished from that which we have for creatures; both signify being in opposition to non-being, and the word *being* must always have the same significance. Nevertheless, if *being* in God is thus formally univocal with *being* in creatures, this does not mean that it is metaphysically so, or that its actualization is so, since to this latter *ens ab alio* the being of God is opposed as infinite, perfect, unparticipated, and essential being. 'Conceptus entis non est formaliter conceptus creati nec uncreati. . . . Deus et creatura non sunt primo diversa in conceptibus, tamen sunt primo diversa in realitate, quia in nulla realitate conveniunt'—*Ox.* i, d. 8, q. 3, n. 11, 16, and 17. The univocal concept does not exhaust the concrete mode of the infinite and necessary being in God, for if God could be conceived distinctly and set over against the not-God, He would be completely known by creatures—*Ox.* i, d. 2, q. 2, n. 4 and *ibid.*, d. 3, q. 2, n. 16 and q. 3, n. 5. A more serious consequence would be that God would be placed in a genus and the radical difference between created and uncreated being destroyed.[1] 'Teneo opinionem meam mediam quod, cum simplicitate Dei stat quod aliquis sit conceptus communis sibi et creaturae, non tamen communis ut generis'—*Ox.* i, d. 8, q. 3, n. 16, and 26; *R.P.* i, d. 3, q. 1, n. 4–6. Understood in this proper way, Scotus's theory of univocal being cannot be regarded as pantheistic.[2] Moreover, the doctrines which we have reviewed on other pages, e.g. that of the actualization of the Divine ideas, the composite nature of creatures versus the simplicity of God, as well as such statements as, 'Deus et creatura sunt primo diversa in realitate, quia in nulla realitate conveniunt' (*Ox.* i, d. 8, q. 3, n. 11), should prove the injustice of such a charge (cf. p. 367).

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[1] For the adaptation of Anselm's ontological argument in this fourth proposition cf. C. Harris, *Duns Scotus*, Oxford 1927, vol. 2, pp. 168–9.

[2] Scotus enumerates them in *De Primo*, iv, n. 36.

[3] Cf. B. Landry, *La Philosophie de Duns Scot*, Paris 1922, pp. 303, 321. (For a criticism of Landry's interpretation of the views of Scotus on our knowledge of the Divine existence and attributes, see Longpré, *op. cit.*, ch. 3.) Erdmann in his *History of Philosophy* (Eng. trans. by W. S. Hough, 1893, vol. i, p. 490) says that Scotus believes that a thing may be true for philosophy and false for theology and refers us to *R.P.* iv, d. 43, q. 3, Schol. 4 (=n. 18); but he ignores the other passages in Scotus which show that this means only that what is not evident to reason may yet be true for faith. Thus, speaking of the Divine omnipotence Scotus writes, 'Licet secundum rei veritatem non includatur contradictio, tamen non est evidens nobis quod non includatur, sicut de aliis articulis fidei'—*R.P.* i, d. 42, q. 2, n. 6. Had Scotus believed in any possibility of contradiction between faith and reason, he would scarcely have been so eager to rationalize about such non-evident truths as the Trinity, the Divine omnipotence, the predestination of Christ, &c. For a full discussion of the question cf. P. Minges, *Das Verhältnis zwischen Glauben und Wissen*, Paderborn 1908, p. 1 f.

Because we reason from creatures and that rightly, because all creatures are vestiges of God—cf. *Ox.* i, d. 3, q. 5, n. 5 f., we all assume that our concepts of God have a certain validity;[3]

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[1] It would seem then that the univocal concept applies to *ens transcendentale* and not to *ens* as the first of the ten categories. In *Ox.* i, d. 8, q. 3, n. 18 he writes, 'Respondeo quod ens prius dividitur in infinitum et finitum quam in decem genera, quia alterum istorum, scilicet ens finitum, est commune ad decem genera.'

[2] Cf. C. Harris, *op. cit.*, vol. 2, p. 185.

[3] In *R.P.* i, d. 3, q. 1, n. 7 Scotus says that other masters assume univocation, though they deny it in words.

and even if they do not exhaust the whole nature of the being, the wisdom, &c., found in God, we must admit that they give us some positive knowledge of these particular quiddities as they exist in God—*Quodl.* vii, n. 7; *Ox.* i, d. 3, q. 2, n. 16. Otherwise, we could not deny something to God, any more than we could say that man is not an ass, if we had no positive knowledge of his nature. Were negation taken as absolute, we could know no more of God than of a chimera, for *non-lapis* could be applied equally well to both—*Ox.* i, d. 3, q. 2, n. 2 and 16; *ibid.*, d. 8, q. 3, n. 9; *R.P.* i, d. 3, q. 1, n. 1. We must know something of a subject before we can ascribe suitable attributes to it, and whether we speak of those Divine attributes that are derived from the relation of God to creatures, e. g. eminence and causality, or of those that are intrinsic, e. g. justice and goodness, a knowledge of His kind of being is presupposed [1]—cf. *R.P.* i, d. 3, q. 1, n. 8 and 9; *Ox.* i, d. 3, q. 2, n. 5.

So much then for M. Landry's assertion that Scotus is an agnostic.[2] It is inconceivable how he has ignored such passages as *Quodl.* ii, n. 16, 'Dico quod ista conclusio: "In divinis non possunt esse plures productiones eiusdem rationis", non sola fide tenetur, sed etiam ratione necessaria ostenditur,' or *R.P. Prol.* q. 2, n. 17, 'Sciendum quod quinque sunt gradus cognitionis de Deo: Prima et suprema est intuitiva quam semper habuit de essentia divina Deus sub ratione Deitatis. Secunda est cognitio de obiecto non intuitive cognito, sed distincte cognito per aliquod repraesentativum subiecti. Tertia, quae est obiecti non praesentis intellectui, nec in se, nec in alio repraesentativo, sed immediate creata a Deo, quae non subest actui voluntatis, quae tamen non est evidens ex obiecto. Quarto cognitio est illa quae opitulatur piis et defenditur contra impios ut cum literae sensus cognoscitur, et unus locus literae per aliam exponitur, et persuasiones adducuntur, et contra impios defenditur. Quintus gradus est simplicium cuius cognitionis certitudo subest actui voluntatis et haec cognitio est habita per fidem;' *Ox.* i, d. 3, q. 2, n. 29—'Loquendo de ordine perfectionis simpliciter, dico quod perfectissimum cognoscibile a nobis etiam naturaliter est Deus.' *R.P. Prol.*, q. 3, a. 3—'Plura per demonstrationem quia possumus scire naturaliter de Deo'—cf. *ibid.*, i, d. 3, q. 1, n. 8.

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[1] For an enumeration of the other Divine attributes cf. *De Primo*, c. 4, n. 36–7.

[2] The chief reason why many regard Scotus as an agnostic is his theory that the Divine existence, omnipotence, &c. are not *per se nota* and so do not produce 'scientia propter quia'—*Quodl.* vii, n. 11. But Scotus only means that, while they are provable by a *demonstratio quia*, these truths are not susceptible of a *demonstratio simpliciter* and hence are known only obscurely—*Quodl.* xiv, n. 9, 10, and 21; *Ox.* iii, d. 24, n. 2 f. Consequently, as Minges (*op. cit.*, p. 49) says, Scotus allows that theology is a science but not a strict science like geometry, whose principles are self-evident. 'Dico quod cum fide stare non potest scientia proprie dicta, quia termini non apprehenduntur in particulari sub propriis rationibus, ideo principia non sunt nota ex evidentia rei'—*Ox.* iii, d. 24, n. 7. Scotus's views on the practical character of theology are discussed by Minges in *ibid.*, pp. 79 f., 103 f.

With regard to the intellect of the separated soul, Scotus, contrary to St. Thomas[1] and to Henry of Ghent,[2] affirms that in addition to retaining its certain and proper knowledge of material things it has also its natural powers of intuition and abstraction by means of which it, like the angels, can acquire new species from things hitherto unknown—*Ox.* iv, d. 45, q. 1, n. 4; *ibid.*, q. 2, n. 12 and q. 3, n. 20; *R.P.* iv, d. 45, q. 2, n. 5 f., n. 16 f. Its retention of these powers is essential, since intellectual activity is its most vital characteristic; and though, as separated, it recedes from corporeal things, the acquisition of knowledge will still be possible for it because knowledge requires only a *proportio* and not a *convenientia* between the knower and the known. Besides, there is no point in pluralizing the causes of knowledge in separated souls and lowering their dignity by assuming that all new species come from God and the angels; it is sufficient that a clearer knowledge of the Divine essence and of supernatural truths should come by infusion. Lastly, no two accidents of the same species can come to the same subject; hence, the soul cannot receive one species from a stone during its existence on earth and another from God after its separation from the body—*Ox.* iv, d. 45, q. 2, n. 5 f.; *Ox.* iv, d. 10, q. 8, n. 7; *R.P.* iv, d. 45, q. 2, n. 11 f., n. 16 f. The whole aim of this view, as Scotus himself explains, is to insist that the soul can become perfect by two methods, and that, as separated, it can have not only supernatural perfection, but also the supreme perfection of its nature—*Ox. ibid.*, n. 14; *R.P. ibid.*, n. 19; *Quodl.* xiv, n. 2.

The problem of intellection brings us naturally to the consideration of the will, for Scotus regards the intellect and the will as most intimately related. The intellect must first know an object before the will can act. 'Omnem actum voluntatis naturaliter praecedit actus intellectus'—*Ox.* i, d. 17, q. 4, n. 4; 'Voluntas non potest habere actum circa ignotum'—*Ox.* i, d. 3, q. 3, n. 21; 'Nihil est volitum nisi cognitum'—*Ox.* ii, d. 1, q. 1, n. 23. Hence, while the intellect contains within itself the power to know, the will is not thus self-sufficient. Moreover, unless the intellect directs the will and there is the fullest knowledge, the will cannot attain its highest freedom. 'Sicut universaliter libertas stat cum apprehensione praevia, ita summa libertas stat cum summa apprehensione praevia'—*Ox. prol.* q. 4, n. 34. It is because the will is deliberative that it is free; in its natural state it does not choose its act but merely inclines to the reception of perfection—*Ox.* iii, d. 33, n. 23; *Ox.* iv, d. 49, q. 10, n. 2. Therefore, following Pecham, Scotus defines the will as 'proprie appetitus rationalis'—*Ox.* iii, d. 33, n. 9; *Ox.* iii, d. 17, q. 1, n. 2; *R. P.* ii, d. 1, q. 1, n. 20.

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[1] *S. Theol.* i, q. 89, a. 3; *Sent.* iv, d. 50, q. 1, a. 1.

[2] *Quodl.* iv, q. 7.

Nevertheless, if the will is thus dependent, the intellect is not completely superior, for once an object is presented to the intellect, it has no power over its act and is not able to understand or not to understand, as the will is able to act or not to act. 'Intellectus movetur ab obiecto naturali necessitate, voluntas autem libere se movet'—*Quodl.* xvi, n. 6; *Met.* ix, q. 15, n. 6; *Ox.* ii, d. 6, q. 2, n. 11. It is true that when confronted with an object, the intellect alone performs the act of knowing (*R.P.* ii, d. 42, q. 4, n. 7), but the will must have previously concurred with it, since attention is a *sine qua non* of intellection. 'In potestate voluntatis est avertere intellectum a consideratione finis, quo facto voluntas non volet finem, quia non potest habere actum circa ignotum'—*Ox.* i, d. 1, q. 4, n. 3; *Ox.* ii, d. 42, q. 4, esp. n. 5, 10–12. Again, in *R.P.* ii, d. 42, q. 4, n. 13 Scotus says that the potencies are so interrelated that 'voluntate complacente in aliqua intellectione ipsa intenditur et firmatur; voluntate autem non complacente et nolente intellectionem ipsa remittitur et debilitatur. . . . Nam si agens idem secundum diversas actiones agat circa idem obiectum, fortius agit et perfectius'—cf. *ibid.*, n. 8. Lastly, 'Voluntas est causa aequivoca motus intellectus imperando. Unde Philosophus, 9 *Met.* text 15[1], dicit quod quando est electio et determinatio circa contraria, sit determinatio per voluntatem, et sic voluntas imperando determinat intellectum ad unum'—*R.P.* iv, d. 49, q. 2, n. 13. It is in this sense that Scotus agrees with the statement of Anselm in *De peccato originali*, c. 4:[1] 'voluntas est motor in toto regno animae'—*Ox.* ii, d. 42, q. 4, n. 2. Consequently if knowledge is necessary for willing, willing is also necessary for knowledge. 'Respondeo: nec actus intellectus est totalis causa actus voluntatis, sed partialis causa, si est aliqua; nec e converso, voluntas est totalis causa intellectionis—*Ox.* iv, d. 49, quaest. ex lat., n. 16; *R.P.* iv, d. 49, q. 2, n. 14. As the intellect does not determine the will, so too the will does not compromise the nature of the intellect, and, therefore, contrary to Augustine and Grosseteste Scotus declares that the evilly inclined will does not generate uncertainty in knowledge[2]—*Ox.* iii, d. 36, n. 12 f.

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[1] ix, S. 1, c. 6, f. 110ʳa.

Similarly, in the moral life[3] the intellect and the will must interact. As opposed to the inclinations of the sense appetite, the will is essentially appetite that is free, but it must be guided by reason—*Ox.* iv, d. 49, q. 10, n. 2. 'Dico quod praxim necessario naturaliter praecedit aliqua cognitio'—*Ox. Prol.* q. 4, n. 14 and 41. 'Absolute nullus vitiose vel virtuose agit nisi agat ex deliberatione'—*Ox.* iii, d. 33, n. 23. 'Omne peccatum est contra rectitudinem rationis et voluntatis, aliter non esset peccatum'—*R.P.* ii, d. 21, n. 1; *Ox.* iii, d. 36, n. 16; *Ox.* i, d. 44, n. 1.

If Scotus holds that intellect and will always interact, on what ground has the doctrine of indeterminism been ascribed to him?[4] Apparently on the ground that he insists at great length on the autonomy of the will, an autonomy that he regards as often overshadowed by the function of the intellect in an elicited act. For this reason he insists that the intellect may direct the will, but cannot determine it. 'Dico quod intellectus non est totalis motor respectu appetitivae quia, sicut dictum est, intellectus non movet nisi secundum quid et voluntas vult simpliciter'—*R.P.* ii, d. 7, q. 3, n. 12. 'Ratio formalior voluntatis est magis libera quam ratio appetitus'—*Ox.* ii, d. 25, n. 16. 'Licet sit aliqua prioritas intellectionis ad volitionem, non tamen est sic prior ut requirat rationem rectam esse priorem praxi'—*Ox. Prol.* q. 4, n. 36. Again in *R.P.* iv, d. 49, q. 2, n. 4 he expresses his agreement with Anselm's view in *Cur Deus Homo*, c. 1[1]—'Velle est propter eligere,' adding 'igitur velle est propter velle et non propter intelligere'. Will alone, then, must accept or reject—*Ox.* ii, d. 25, n. 22. If phantasms were the complete effective cause of volition, separated souls and angels, since they have no phantasms, would not be able to will—*Ox.* ii, d. 25, n. 9.

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[1] *Ibid.*, *P.L.* 158: 438.

[2] Cf. P. Minges, *Ist Scotus Indeterminist?*, Münster 1904 (*Beiträge* series, Bd. V, pp. 32–5).

[3] Interesting articles on this by Dr. Klein are to be found in *Franziskanische Studien*, 1916 Hft. 4, 1919 Hft. 2–4, 1920 Hft. 2–4, 1921 Hft. 4, 1925 Hft. 4, under the title of *Intellect und Wille als die nächsten Quellen der sittlichen Akte nach Johannes Duns Skotus*. Cf. also Longpré, *op. cit.*, pp. 78–89, 129–39.

[4] The chief offenders are cited by Minges in *op. cit.*, p. 66 f., and to them should be added Landry, *op. cit.*, pp. 226, 231.

Consequently, Scotus holds that nothing other than the will is the total cause of willing,[2] for just as there is no cause why heat heats unless because heat is heat, so there is no cause why will wills unless because will is will—*R.P.* i, d. 10, q. 3, n. 4. 'Voluntas . . . semper habet suum modum causandi proprium scilicet liberum'—*Quod.* xvi, n. 14 and 15. 'Nihil aliud a voluntate est causa totalis volitionis in voluntate'—*Ox.* ii, d. 25, n. 22; *ibid.*, i, d. 1, q. 1, n. 2. Free will is really self-determination rather than the power of choosing opposites, for the sun has the power of producing opposites, e.g. liquefying and coagulating, and yet its power is only natural and not free—*Ox.* i, d. 2, q, 7, n. 33. Only when it is contrasted with the sense appetites can will be considered as a power of choosing opposites—cf. *Ox.* iii, d. 15, n. 38.

Will, then, is identified with freedom and, for this reason, intellect, which has not the power to understand or not to understand, is often termed 'nature'—cf. *Quodl.* xvi, n. 13; *Ox.* i, d. 2, q. 7, n. 33. Since to have a will is to be free, the souls in heaven and the angels must be free to love or not to love God; especially is this true for the angels, since if they had not been able to sin from the very first moment of their existence, they could not have fallen[3]—*Ox.* iii, d. 18, n. 20; *Ox.* i, d. 1, q. 4, n. 13 and 15;

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[1] Cf. Lib. ii, c. 1, *P.L.* 158: 401.

[2] This really means that the will is independent of everything except God, on Whom, as the First Principle, all creatures depend for their existence and causality—*R.P.* ii, d. 44, n. 4. In *Ox.* ii, d. 37, q. 2, n. 5 f. we are told that if the Divine co-operation with the will were more than mediate, the following difficulties would arise: (*a*) the will would not be self-determining, (*b*) the creature would not be truly contingent, (*c*) sin would be impossible, (*d*) the temporal would move the eternal to act, and (*e*) while other things could be the total cause of their effects, the will could not be such a cause.

[3] Cf. Minges, *op. cit.*, pp. 57–65.

Quodl. xvi, n. 5. But Scotus cautiously maintains elsewhere—'Difficile est voluntatem non inclinari ad id quod est dictatum a ratione practica ultimatim, non tamen est impossibile'—*R.P.* ii, d. 39, q. 2, n. 5.

The above, then, brings out that both intellect and will have their own proper activities. The chief positive passages for the primacy of the will—a theory which had been more clearly asserted by Pecham and by Richard of Middleton—are the following: *R.P.* iv, d. 49, q. 2, n. 6 and 17 where he quotes Aristotle (*Met.* ix, text 15) [1] as saying that the posterior in generation is more perfect than the prior, as even act is to potency. Therefore, although the will may be posterior to the intellect in activity, it can still be more perfect; *Ox.* iv, d. 49, quaest. ex lat., n. 16 and 18—What is prior is not necessarily more independent, as is seen from the case of matter and form; *R.P. loc. cit.*, n. 6—Anselm, too, in *De Conceptu Virginali*, c. 4 [2] claims that the will commands all the other faculties; *R.P. ibid.*, n. 11 and 20; *Ox. ibid.*, n. 13 and 20—Hugh of St. Victor (*Comm. super Ang. Hier.* c. 7),[3] St. Paul (I *Corinth.* 13), and Augustine (15 *De Trin.* c. 19) [4] maintain that a *habitus charitatis* is nobler than a *habitus intellectualis*, and besides, beatitude consists *formaliter* in an act of will; *R.P. ibid.*, n. 12—Aristotle should not be taken as excluding *dilectio* from the speculation which brings felicity (*Eths.* 1 and 10),[5] for it is customary for him to treat the will and the intellect as one; and *R.P. ibid.*, n. 18—that is nobler and more perfect of which the corruption is more serious, but the corruption of the intellect is not really bad, because the intellect cannot choose to understand or not to understand.

It is chiefly in his treatment of the supernatural life that Scotus brings out the primacy of the will, for he declares firstly that it is of the nature of the will to seek the infinite good [6]—*Ox.* i, d. 48, n. 2; iv, d. 49, q. 10, n. 2; *R.P.* iv, d. 49, q. 9, n. 5; and secondly, that before the Holy Spirit can dispense the grace that makes possible the higher life[1] wherein the soul experiences the knowledge and the love of God (*Ox.* i, d. 17, q. 3, n. 22), the will must possess charity—a combination called character or disposition to grace[2]—*R.P.* iv, d. 49, q. 2, n. 13 f. On the reception of grace the supernatural virtues of faith and hope become active (*R.P.* iv, d. 6, q. 8, n. 5), and it is to be noted that while Scotus, like Richard, holds that grace is received primarily into the will rather than into the essence of the soul (*R.P.* iv, d. 49, q. 1, n. 5; *Ox.* iv, d. 49, q. 2, n. 13 f.), he allows that the resulting supernatural virtues perfect the whole soul, faith being in the intellect rather than in the will[3]—*Ox.* iii, d. 25, q. 1, n. 12. So just as in the natural life, neither the intellect nor the will is unconditionally the superior, in the super-natural life also, in spite of the immediate affection of the will by beatific love (*R.P.* iv, d. 49, q. 2, n. 20), both are brought to perfection, until at last in beatification both are united immediately to God. 'Beatitudo est perfecta quies naturae intellectualis a Deo'—*Ox.* iv, d. 49, q. 3, n. 3; *ibid.*, q. 2, n. 27 f. Again, 'Impossibile est naturam perfecte esse beatam et perfecte quietari, nisi tota quietetur et non secundum quid: igitur per se non potest quietari voluntas sine intellectu, nec e converso, quia quaelibet est potentia unius totius naturae et per consequens beatitudo consistit in perfectione potentiae utriusque' —*R.P.* iv, d. 49, q. 3, n. 4

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[1] ix, S. 2, c. 4, f. 113^{r}b.

[2] *P.L.* 158: 438.

[3] *P.L.* 175: 1062.

[4] *Ibid.*, *P.L.* 42: 1860.

[5] i, c. 7, f. 4^{r}b f. and x, c. 8, f. 75^{v}b.

[6] Only in this sense is the will inclined. These passages contradict the statement of K. Werner, *Die Psychologie u. Erkenntnislehre des Johannes Duns Scotus*, Vienna 1877, p. 52 f., that Scotus denies to man any instinctive disposition for God.

Having discussed the intellect and the will, we pass to the consideration of memory. Of this faculty Scotus, like his predecessors, says little (cf. p. 323, n. 1). He defines it as 'cognitio seu cogitatio actus alicuius praeteriti ipsius recordantis et hoc inquantum praeteriti'—*Ox.* iv, d. 45, q. 3, n. 5 and 3; *R.P.* iv, d. 45, q. 3, n. 2. Hence it implies not only the reproduction of the *species intelligibiles*, but also a pereception of the flow of time between the instant when the species was first produced and the present reproduction—*Ox. ibid.*, n. 5; *R.P. ibid.*, n. 3. This intellectual memory requires the co-operation of sense memory which stores up *species sensibiles*, but it is something quite different from sense memory which, as a sense power, is unable to reflect on itself, to perceive time, or to retain intellections, volitions, and such necessary propositions as 'a triangle has three angles'—*Ox. ibid.*, n. 16 and 17; *R.P. ibid.*, n. 5–10.

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[1] This is the usual way, but it is in the absolute power of God to act differently. 'Quidquid Deus potest facere per causam efficientem mediam, potest facere sine ea; ergo summam fruitionem, quam potest facere mediante summa gratia, potest facere sine ea'—*Ox.* iii, d. 13, q. 4, n.1.

[2] In the much debated problem of the relation between grace and charity Scotus again introduces the formal distinction saying, 'gratia formaliter est virtus quae est caritas'—*Ox.* ii, d. 27, n. 3; *R.P.* iv, d. 6, q. 10, n. 5.

[3] This, together with his general view of the will, and his doctrines of synderesis as an intellectual *habitus principiorum rationis practicae* and of prudence as necessary for disposing the will properly, again shows that Scotus was not an excessive voluntarist.

ANGELOLOGY

In discussing the grounds on which the angel is held to be superior to the human soul Scotus rejects two opinions (1) that which concerns the soul's need of union with a body,[1] and (2) that which finds the difference in methods of intellection.[2] The first is rejected because the body is not the *ratio essendi* for the soul but, rather, as matter, presupposes the soul, as form. The body should be taken in conjunction with the soul and the whole human composite contrasted with the angelic nature—*Ox.* ii, d. 1, q. 5, n. 2. The second opinion is rejected because intellection as a potency is posterior to the nature of the soul. 'Prima distinctio entis non est per naturam suam, inquantum est principium talis operationis, sed per naturam suam, ut haec natura . . . quia enim est haec natura, ideo est principium talis operationis et non est contrario. . . . Ita dico quod quia angelus est talis natura ad se, et anima talis natura ad se, ideo primo distinguuntur specie non quidem sicut duae species, sed sicut species et pars speciei, quia anima non est proprie species sed pars speciei'—*Ox.* ii, d. 1, q. 5, n. 4 and 5. Again, it cannot be said that the angel understands intuitively and the soul discursively, because, as we shall see below, the angel has a kind of discursive knowledge, and, as we have seen, the soul has an intuitive knowledge of singulars; besides, the knowledge of the beatified soul could not be discursive—*Ox. ibid.*, n. 3. Hence it can only be said that the real specific difference between angels and men depends on their absolute entities.

Likewise, from the views of his predecessors on the varieties of composition that distinguish the angel and the Divine Being

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[1] Cf. p. 261.

[2] Cf. St. Thomas, *S. Theol.* i, q. 55, a. 2, and Henry of Ghent, *Quodl.* xii, q. 8.

Scotus seems to differ. Thus, while he admits the composition of essence and existence because the angels are beings created *in aevum* (*Ox.* ii, d. 1, q. 3, n. 16; *ibid.*, d. 2, q. 1, n. 12 f. and q. 2, n. 2), he appears undecided about that of matter and form. Certainly, there is no question of corporeal matter, and such passages as that in *Ox.* iv, d. 10, q. 8, n. 5 where he says that the angels are absolutely separate from matter may refer only to this corporeal matter. However, he seems in some passages to have in mind the rejection of intelligible matter rather than of corporeal matter, e. g. (1) *Ox.* iii, d. 22, n. 15 and *Met.* vii, q. 13, n. 14—quoted under the question of matter in the soul (cf. p. 318); (2) *Ox.* ii, d. 3, q. 8, n. 7: 'Essentia angeli est immaterialis secundum se'; (3) *R.P.* i, d. 2, q. 3, n. 2 (after stating that some hold that, while the infinity of matter is perfected through form, form is not perfected by matter but only contracted, he adds): 'Haec ratio non concludit; si quilibet actus non receptus in materia habeat infinitatem perfectionis, et forma angelica est huiusmodi, ergo angelus est formaliter infinitus'; (the corresponding passage in *Ox.* i, d. 2, q. 2, n. 33 is not so decisive, for in replying to the view that God is infinite because He is not a form in matter[1] Scotus maintains, 'Haec ratio nihil valet, quia secundum ipsos angelus est immaterialis, ergo in natura erit infinitus; nec possunt dicere quod esse angeli finiret eius essentiam, quia (secundum eos) esse est accidens essentiae et posterius naturaliter etc.); (4) *Quodl.* ix, n. 21 runs, 'Ad propositionem formam materialem separari a materia non requiritur nisi quod forma non sit simpliciter necessaria ratio suae unionis ad materiam, quod verum est, quia est entitas absoluta, et ita prior natura illa unione; sed formam immaterialem, ut Angelum, posse uniri materiae poneret aliqua uniri quorum unum est ratio repugnantiae'; (5) in *Ox.* ii, d. 3, q. 7, n. 4 he writes, 'Animae intellectivae distinguuntur numero in eadem specie, et tamen sunt formae purae, licet perfectivae materiae; igitur non est impossibilitas a parte formarum, quod distinguantur numero in eadem specie; quidquid enim concluderet istam impossibilitatem ratione formae in Angelis, concluderet in animabus.'

The only passages that seem to suggest that matter exists in the angels are *R.P.* ii, d. 12, q. 2, n. 12 (quoted on p. 318) and

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[1] Cf. St. Thomas, *op. cit.*, i, q. 7, a. 1 and q. 12, a. 1, ad 2m.

Ox. i, d. 8, q. 2, n. 2, 'nulla creatura habet entitatem secundum totam perfectionem; . . . Componitur igitur non ex re et re positivis, sed ex re positiva et privatione, id est, ex entitate aliqua quam habet, et ex carentia alicuius gradus perfectionis entitatis': but the latter is not final, for, unlike Richard, Scotus never identifies the angelic potency for perfection with spiritual matter. Hence for him, the angels, as creatures, might well have act and potency (*Ox.* ii, d. 1, q. 2, n. 6) without having matter and form. The failure of Scotus to treat professedly of this vexed question of the hylomorphic composition of spiritual beings is, indeed, remarkable.

The third variety of composition, that of species and individual differentiae, is readily admitted by the Subtle Doctor, since it is quite consistent with *haecceitas* as the principle of individuation. Like Richard, he investigates its rejection at great length—*Ox.* ii, d. 3, q. 7, ; *R.P.* ii, d. 3, q. 1 ; *Quodl.* ii, n. 5 f. One of the arguments employed in its rejection, he tells us, is based on Aristotle's *Met.* vii, c. 1: [1] 'In his quae sunt sine materia, idem est quod quid est et illud cuius est,' and proposes that, since the angel is without matter and his *quod quid est*, which is the same as himself, is that which distinguishes him from other angels, there will not be a specific nature common to the angels. To this argument Scotus replies that Aristotle's thesis cannot be accepted as a premise because it leads to the impossible conclusion that the angelic quiddity, because it has not matter, is *formaliter* necessary, its *esse* not differing from its *posse*. Besides, strict identity between the quiddity and that of which it is the quiddity is true for God alone. A second argument for only one angel to the species is drawn from Aristotle's comparison (8 *Met.*) [2] of form with number and his conclusion that whatever is added or subtracted from number varies the species. To this Scotus objects that 'form' as compared to number by Aristotle really signifies the whole quiddity of a material substance and not its form as opposed to its matter. Besides, it should not be thought that all formal differences are specific differences, for when we say that one angel differs from another by his form, this does not involve a difference of species any more than a difference in humanity is involved in the statement that several men differ from each other. A formal difference may mean a difference *in* form as well as a difference *of* forms. A third argument likewise drawn from Aristotle concludes from the statement in *Met.* 10, penult c. 10 [1] to the effect that masculinity and femininity are not specific differences but only material differences within the form of humanity that all differences of form must be specific differences. Scotus contends that Aristotle is merely saying that only a certain formal difference is specific and not that all formal differences are specific. Fourthly, if it is said that, according to Aristotle in 2 *De Anima*,[2] the multiplication of individuals is only for the preservation of the species in corruptible things, and that therefore it is unnecessary in angels, Scotus replies that this preservation is not the only reason for a multiplication of individuals in species. The Divine goodness is also a factor and there would have been many men in the state of innocence even if Adam had not sinned and brought about the corruption of the human race. Even the nature of the sun or moon, though it happens to be actually specifically one, is in itself multipliable. Lastly, it cannot be said that there is no numerical plurality in perfect beings because it is more glorious to multiply species than individuals, for the Divine goodness intended that there should be several individuals in the same species.

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[1] vii, S. 2, c. 13, f. 91^{r}a.

[2] viii, S. 1, c. 5, f. 102^{r}b.

Against the arguments just raised and answered Scotus proposes the following considerations. (*a*) The quiddity of the intelligences, like all quiddity, is communicable, for even the most perfect quiddity, e.g. the Divine essence, is communicable. (*b*) Every created quiddity being definable is able to be conceived *sub ratione universalis*, and although the quiddity of an angel is really the same as its singularity, still it can be understood without that singularity. But if the angel, like God, were singular of itself, there would be contradiction in considering it under the nature of a universal. (*c*) An angel may be annihilated without the whole angelic nature perishing. (*d*) Angels though immaterial can be individual, for separated souls, which are pure forms, are individual apart from any relation to body. (*e*) The whole angelic species, unlike man, did not fall. (*f*) With the exception of God, every nature is multipliable, because it is not *de se* an *actus purus* and does not include of necessity some *quasi* singular entity; otherwise, it would be infinite, for the individual nature would exhaust the whole perfection of its species and no two of its kind would be possible.

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[1] viii, S. 2, c. 8, f. 129^{r}a.

[2] Cf. ii, S. 3, c. 1, f. 133^{v}b.

Of the fourth variety of angelic composition, namely that of substance and faculties, Scotus does not treat extensively. In *Ox.* i, d. 8, q. 2, n. 2 he says that the intellect and the will of the angel are not identical with his substance, for then the angel would be formally beatified. Further, since all is intelligible, and the angel in some way understands the infinite, its essence, if identical with its intellect, would be infinite. Again, were they the same, the angel's intellection would not depend on some object *nisi a quo dependet suum esse*, and so nothing would be inferior to it, and it could understand things (even itself) only as they exist in God, the source of its essence. The faculties of the angel, then, must be distinct from its essence. Yet, if Scotus writes, 'Perfectissima intelligentia est receptiva accidentis quia capax est suae intellectionis et volitionis' (*ibid.*) or 'Intellectio angeli est sibi accidentalis' (*Ox.* iv, d. 1, q. 1, n. 18), he must not be understood as meaning that the intellect is really distinct from the essence, but only, as in the case of the soul, that there cannot be a complete identity such as there is in God—cf. *Ox.* i, d. 2, q. 2, n. 22. That they are not really distinct is also supported by Scotus's insistence that intellection and volition, being proper angelic operations, are measured by *aevum* like the angelic substance, and not, as others [1] suppose, by a kind of time, not continuous but discrete—*R.P.* ii, d. 2, q. 1, n. 4 f.

Concerning the angelic knowledge, Scotus maintains that the angel knows creatures in five different ways. 'Angelus potest intelligere "A" praeter visionem ipsius in Verbo, videlicet intuitive in se, intuitive in intellectu alterius angeli cognoscentis illud, et abstractive per speciem habitualem concreatam, vel acquisitam'—*Ox.* ii, d. 9, q. 2, n. 22. The last way is interesting since it shows that Scotus takes sides with Richard of Middleton against the other men that we have studied and against St. Thomas who denies that the angels receive species from external objects and also that they have a passive and an active intellect.[2] Scotus claims that they must have an active intellect for in

[1] Cf. St. Thomas, *S. Theol.* i, q. 10, a. 5 and Henry of Ghent, *Quodl.* xii, q. 8.

[2] *S. Theol.* i, q. 55, a. 2 and q. 54, a. 4.

the case of man the possession of an active intellect is a perfection, and angels are more perfect than man; so too, they must have a passive intellect, else they could not receive even the concreated species that they generally are admitted to possess. Secondly, if the angels do not receive species from external objects we are faced by two impossible alternatives: (*a*) they will have an infinite number of *rationes* for the understanding of things and thus be equal to God, and (*b*) they will have no means of perfecting their creaturely deficiencies and their nature will not be more perfect than that of a stone—*Ox.* ii, d. 3, q. 11, n. 4–6, 9 and 11; *R.P.* ii, d. 11, q. 2, n. 4, 5, and 10. The species received from external objects perfect them in their intelligible and accidental *esse* and not in their substantial and essential *esse*. These species, though received without phantasms, are numbered according to the number of things known, and are not fewer in the case of superior angels,[1] since in every created intellect the *ratio* of knowing is posterior to the thing known—*Ox. ibid.*, q. 10, n. 6–11, 15; *R.P.* ii, d. 3, q. 2, n. 8.

However, these acquired universal species are not sufficient to exhaust the knowability of external objects, for universality cannot include individuality, and hence we must suppose that objects evoke singular as well as universal species.[2] '⟨Angelus⟩ non potest cognoscere singulare, ut hoc, ex ratione universalis, quia haec natura, ut haec, non continetur determinate, scilicet ut haec, sub universalitate; si ergo cognoscitur singulariter hoc ut hoc, hoc est per propriam speciem; sed non est probabile quod sint concreatae omnes species singularium omnium possibilium sibi cognoscere, quia, cum talia sint infinita, haberent species infinitas actu, quodlibet enim individuum potest cognoscere'—*Ox.* ii, d. 3, q. 11, n. 11; *R.P.* ii, d. 11, q. 2, n. 11.

Singulars are known to the angels not only by abstracted species, but also intuitively or 'secundum existentiam actualem'—*Ox. ibid.*, n. 12, and ii, d. 9, q. 2, n. 34 and 36; *R.P. ibid.*, n. 12. The third way in which they are known is by concreated species.[3] Hence with these three ways of knowing singulars, the angel can be rightly said to know every entity that is actually in things—

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[1] This was St. Thomas's opinion in respect of concreated species—cf. *op. cit.*, i, q. 55, a. 3.

[2] Cf. Roger Bacon, pp. 124, 168 *supra*.

[3] This was denied by Henry of Ghent, who supposed that the concreated species were only universal—*Quodl.* v, q. 15.

cf. *Met.* vii, q. 15, n. 6 and 7. That singularity is not beyond the comprehension of the angel is also deducible from the fact that he knows his own essence as well as God Who is a singular—*R.P.* ii, d. 3, q. 3, n. 6. To return to the concreated species, we know that these apply also to the universal nature in things and thus serve as one of the chief distinctions between angelic and human knowledge. 'Angelus habet aliquam cognitionem quam non recipit a rebus . . . in qua differt ab anima, et aliquam in qua cum anima convenit ut istam quam accipit a rebus'—*Ox.* ii, d. 3, q. 11, n. 13.

As for the two other methods in which angels know creatures, viz. intuitively in the intellect of another angel and *in Verbo*, Scotus only casually remarks that the former is based on the hypothesis that a superior angel knows what an inferior one knows—*Ox.* ii, d. 9, q. 2, n. 19, and that the latter is the primary and most perfect knowledge which the angel has—cf. *Ox. ibid.*, n. 26 and ii, d. 3, q. 9, n. 10.

In addition to a knowledge of external things, the angel has a knowledge of himself *per essentiam* because (*a*) his essence is actually intelligible *simpliciter*, and (*b*) unlike the human soul, which must be in direct relation to phantasms, the angelic essence is a complete *ratio intelligendi seipsam.* The whole causality in this knowledge is not to be ascribed to the essence and the intellect left passive, as some hold;[1] the essence, even though it can move the intellect more effectively than a *species intelligibilis* because it is present *secundum esse simpliciter et absolutum*, is only a partial and formal *ratio* of intellection—*Ox. ibid.*, q. 8, n. 8 and 14; *R.P.* ii, d. 3, q. 3, n. 7 f. The angel not only knows himself intuitively *per essentiam* but even *per speciem*; otherwise he would not be able to know himself abstractively or his own *passiones* as he knows those of other quiddities—*Ox. ibid.*, q. 10, n. 16; *R.P. ibid.*, n. 12.

As in the case of the soul, the natural knowledge of the angel does not involve a distinct intuitive knowledge (*cognitio visiva*) of God as He exists in Himself, for nothing perfectly represents the Divine essence other than Himself—*R.P.* ii, d. 3, q. 4, n. 3 and 8, and q. 3, n. 10; *Quodl.* xiv, n. 10, 21, and 22. However, the angel can be said to have a naturally distinct abstractive knowledge of God because he has a distinct species representing the Divine essence though not as *in se praesentialiter existentem* (*Ox.* ii, d. 3, q. 9, n. 7) that is, not perfectly, but adequately in much the same way as the species of white in my eye represents white, 'scilicet quantum ipsum est cognoscibile secundum proportionem ab oculo meo'—*R.P. ibid.*, n. 8. Thus we need not invent a type of knowledge intermediate between our present knowledge and the knowledge of the beatified soul by suggesting that the angel through his essence, which is an image of God, knows the Divine essence [1]—*R.P. ibid.*, n. 2. If Augustine in *Super Gen.* 4 cap. ult.[2] says that the good angels cannot have a definitive knowledge of God, because He cannot be defined, nor an intuitive knowledge apart from grace, the only type left is an abstractive knowledge involving a distinct species representing the Divine essence. This type seems most appropriate for the angelic nature, since if fallen man knows his last end in a general way, in the state of innocence he would have had a more distinct knowledge, and it is reasonable to suppose that the angels would have had a still more distinct knowledge because they are not so imperfect. Besides, Augustine in 4 *super Gen.* c. 22 and 23 [3] implies such a knowledge when he speaks of the angels knowing creatures naturally firstly *in Verbo* and secondly, *in genere proprio*—*Ox.* ii, d. 3, q. 9, n. 8–11; *R.P.* ii, d. 3, q. 4, n. 3–6. This distinct abstractive knowledge of the Divine essence is concreated with the angel and therefore is supernatural inasmuch as the angel does not gain it by his own activity, but natural inasmuch as it does not come through grace—*Ox. ibid.*, n. 7.

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[1] Cf. St. Thomas, *S. Theol.* i, q. 56, a. 1.

In his treatment of the angelic will Scotus has much in common with Richard. Thus he holds that, as compared to the angelic intellect, the will has a dependency of activity but a primacy of nature; again, he says that from the first moment of its creation it was free to attain or to forfeit beatitude, though beatitude came, as it only could come, as a gift from God [4]—*Ox.* ii, d. 5, q. 1, n. 3; *ibid.*, q. 2, n. 3, 9, and 13; *ibid.*, d. 7, q. 1, n. 7; *R.P.* ii, d. 4, n. 2 f., n. 12. Here, however, Scotus parts company with Richard, for he wishes that an angel, even when he has been confirmed in goodness and in spite of the fact that his freedom from sense appetite enables him to follow his natural good without difficulty (*Ox.* iii, d. 33, n. 17), must still be able to turn from the Highest Good, since to have a will is to be free (cf. p. 339).

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[1] Cf. St. Thomas, *S. Theol.* i, q. 56, a. 3.

[2] Not found

[3] *Ibid.*, c. 23 and 24, *P.L.* 34: 312.

[4] Cf. St. Thomas, *S. Theol.* i, q. 62, a. 2.

In his theories of the relation of the angelic will to inferior beings Scotus stands in close agreement with his forerunners. Thus because, as Aristotle in *Met.* 12 [1] and Dionysius in *De Div. Nom.*[2] say, there is co-ordination between the grades of being in the universe, he maintains that the superior angels illuminate inferior ones, and that these in their turn illuminate men indirectly by means of phantasms, as well as guard them and act as missioners (except in special cases, such as the Annunciation, when superior angels are commissioned)—*Ox.* ii, d. 9, q. 2, n. 9; *ibid.*, d. 10, q. 1, n. 2; *Ox.* ii, d. 11, q. 1, n. 2–6; *R.P.* ii, d. 9, q. 2, n. 10 f. and d. 11, q. 1, n. 3 f. Again, his views on the angelic operation in regard to the particular movement of the celestial bodies, to the eduction of corruptible forms, and to the relation of the angel to place closely resemble those of his forerunners. Apropos of the third, he says that the angel is in place *circumscriptive* not having a correspondence of its parts with those of place, or acting because he is there rather than being there because he acts—*Ox.* ii, d. 2, q. 6, n. 3–16; or, like Richard, mentioning the 1277 condemnation, he remarks, 'Angelus est in loco quia est praesens per essentiam definitive corpori locanti, existenti in loco circumscriptive, et non est in loco solum per operationem[3]—*R.P.* ii, d. 10, q. 1, n. 2 and *ibid.*, d. 2, q. 2, n. 9.

NATURAL THEOLOGY

In his view of the Divine simplicity, which he proves *ex infinitate et necessitate essendi*, Scotus follows the lines laid down by his forerunners. Thus, he denies that there is in God any composition of essence and existence, because God is uncaused and does not derive His existence from another. 'Incausabile est ex se necesse esse'—*De Primo*, iii, concl. 5 and 6. For this reason God will be the only Being in Whom essence and existence are identical—*R.P.* i, d. 8, q. 5, n. 9 and iv, d. 12, q. 3, n. 22.

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[1] xii, S. 3, c. 1, f. 158^{v}a.

[2] Cf. c. 13, *Opera*, Argentina 1502, f. 259 f.

[3] His theory that it is because an angel is in place according to accidental *passiones* and not according to his nature that he can be in two places at one time, though it is not certain whether several angels can be in one place at the same time (cf. *Ox.* ii, d. 2, q. 7, n. 2; *ibid.*, q. 8, n. 2, and q. 6, n. 11 and 16), is probably the origin of the famous gibe about the number of angels that can dance on the point of a needle.

Likewise it is because God is uncaused that He has no material, formal, or final cause—*De Primo* ii, n. 4 and 5 and iv, n. 1. Certainly, if He had matter and form, He would not be the *Primum Efficiens*, because the contradictory natures of matter and form presuppose the causality of a prior efficient cause—*Ox.* i, d. 8, q. 1, n. 2. The same objection would apply to any composition of potency and act—*Ox. ibid.*, n. 5 and 6 and ii, d. 3, q. 6, n. 16. Hence, privation and possibility are peculiar to creatures which, being imperfect entities, are subject to change—*Ox.* i, d. 8, q. 2, n. 2 and q. 5, n. 22, and d. 27, q. 3, n. 10.

Because God has no matter, the function of which is to contract, He will be free from any composition of species and differentiae and His quiddity will be *de se haec*—*Ox.* ii, d. 3, q. 6, n. 20; cf. *De Primo*, iv, n. 38 and *Ox.* i, d. 2, q. 3, n. 2 f.

Lastly, God has no composition of substance and accidents. He could not have corporeal accidents because He is a spiritual Being; He could not have spiritual accidents because, if He is infinite and formally necessary in Himself,[1] His faculties must be the same as His substance—*Ox.* i, d. 8, q. 1, n. 4 and 5; *De Primo* iv, n. 12, 21, 33, 36.

Being absolutely simple, God cannot possess attributes as something added to His nature. 'Nihil est in divinis quod non sit idem essentiae divinae, imo etiam et cuilibet essentiali'—*Quod.* v, n. 15. This applies to the most essential attributes of intellect and will (*Ox.* i, d. 26, n. 54; *Quodl.* i, n. 10) which we shall single out for consideration. 'Suum velle est sua essentia'—*Ox.* i, d. 8, q. 5, n. 24. 'Voluntas in Deo est sua essentia realiter, perfecte et identice'—*R.P.* i, d. 45, q. 2, n. 7 and 9. And in *De Primo*, iv, n. 13—'Intelligere divinum est idem suo velle'—cf. *Ox.* i, d. 2, q. 2, n. 20 f. Yet, as in the case of the human intellect and will, in saying that the Divine intellect and will are the same as the Divine essence, Scotus does not mean that they are only logically distinct [1] from it. He intends only to deny that they are absolutely distinct. Thus we find him claiming later that if they were only logically distinct, God could will with His intellect and understand with His will; whereas, as a matter of fact, God formally understands through His intellect and not through His will—*R.P.* i, d. 35, q. 1, n. 27; *ibid.*, d. 45, q. 2, n. 22. 'Intellectus divinus ex necessitate naturae est speculativus et non est ad hoc formaliter libertas'—*Ox.* i, d. 38, n. 4. A more significant statement is that of *Ox.* iv, d. 46, q. 3, n. 4: 'Sicut in Deo intellectus non est formaliter voluntas, nec e converso, licet unum verissima identitate sit idem alteri; ita iustitia non est formaliter vel quidditative idem misericordiae vel e converso, et propter hanc non identitatem formalem.'

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[1] Only creation and the Incarnation are contingent—*Ox. Prol.* q. 2, lat. n. 6. The Incarnation, for Scotus, as for Albert the Great and Bonaventura, but not for St. Thomas, is a part of the plan of creation. It does not merely serve the purpose of Redemption, but is a decree of God arising from His love and ordaining the assumption of human nature by the Son regardless of the fall of Adam—cf. *Ox.* iii, d. 7, q. 3, n. 3 and cf. P. Raymond, 'Le Motif de l'Incarnation' in *Études Fran.*, 1912, p. 186 f. and 1914, p. 18 f.

Intellect and will are formally distinct from one another and each of them is similarly distinct from the Divine essence. Speaking of the relation of the intellect to that essence, Scotus maintains that it is 'formaliter et *actualiter* et distincte ex natura rei et non tantum virtualiter vel *potentialiter* vel modo confuso, ut quasi educantur de potentia ad actum distinctum ope intellectus negotiantis'—*R.P.* i, d. 35, q. 1, n. 23. Likewise, regarding the will he says, 'De ratione voluntatis infinitae formaliter non est intellectus, nec essentia; non igitur sunt eadem formaliter'—*R.P.* i, d. 45, q. 2, n. 10. Again in *ibid.*, n. 5 we are told that will is not in God through any act of our intellect, nor potentially as white in black, nor virtually as an effect in its cause, but *formaliter*, the distinction between it and the essence being one *ex parte rei secundum quid*. Finally, Scotus explains, 'Intelligo per non-identitatem formalem aliquorum, quando unum non est de formali ratione alterius, ita quod si definiretur non pertineret ad definitionem eius; igitur per non-identitatem formalem intelligo non-identatatem quidditativum, non pertinentem ad definitionem alterius, si definiretur—*ibid.*, n. 9.

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[1] St. Thomas in *S. Theol.* i, q. 3, a. 3, ad 1 writes, 'Quod ergo dicitur deitas vel vita vel aliquod huiusmodi esse in Deo, referendum est ad diversitatem, quae est in acceptione intellectus nostri et non ad aliquam diversitatem rei.' However, in *Sent.* i, d. 2, q. 1, a. 3 he seems to approach the view of Scotus in saying: 'Et sic patet quartum, quod pluralitas istorum nominum non tantum est ex parte intellectus nostri formantis diversas conceptiones de Deo . . . sed ex parte ipsius Dei, inquantum scilicet est aliquid in Deo correspondens omnibus istis conceptionibus, scilicet plena et omnimodo ipsius perfectio, secundum quam contingit quod quodlibet nominum significantium istas conceptiones, de Deo vere et proprie dicitur; non autem ita quod aliqua diversitas vel multiplicatio ponatur in re, quae Deus est, ratione istorum attributorum.'

In these quotations we find again the characteristics of the formal distinction that we have noted on pp. 306 and 321 (cf. p. 356), viz. an inseparable foundation *ex natura rei* and the impossibility of including the two distinguished 'notes' in the same definition; but the quotation from *R.P.* i, d. 35, q. 1, n. 23 really brings out the vital point, for the word *actualiter* as opposed to *potentialiter* shows Scotus's desire to oppose the reduction of all metaphysical entities to mere potencies.

Intellect and will, then, like other attributes, are actually found in the Divine nature and are not merely conceptual. This conclusion is borne out by the Subtle Doctor's acceptance of Richard's theory of an order among the divine atrributes. 'Dico quod est ordo inter rationes sub quibus Deus est conceptibilis, ita quod ratio essentiae est omnino prima et aliae sunt prior aut posteriores secundum quod huic rationi sunt propinquiores vel ab ipsa remotiores'—*R.P.* Prol., q. 1, n. 43; *Ox.* i, d. 8, q. 4, n. 19. Again, 'Intelligere non est primum in Deo, nec primum dans esse divinum, sed primum dans esse divinum est ipsum esse; tum, quia operatio non potest esse prima ratio essendi, tum quia intelligere praesupponit rationem obiecti et potentiae, haec autem praesupponunt rationem entis. Ideo intelligere non est primum dans esse divinum'—*R.P.* i, d. 8, q. 1, n. 1. After *ens*, which must be infinite if God is to be simple, perfect, omnipotent, and capable of knowing the infinitely many (*Ox.* i, d. 20, n. 11 and cf. *ibid.*, iii, d. 14, q. 2, n. 10), comes intellect and then will. 'Intelligere quasi propinquius est illi naturae quam velle'—*De Primo*, iv, n. 11; *Ox.* i, d. 2, q. 2, n. 22. Such an order among the attributes means that when we ascribe them to God, we speak truly of His nature, and since they are unitively contained in that nature and not absolutely distinct from it, we do not imperil the Divine simplicity [1]—*Ox.* i, d. 8, q. 4, n. 21; *De Primo*, iv, n. 36; *Ox.* iv, d. 46, q. 3, n. 2 f.

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[1] Perhaps Dr. Klein's interpretation will elucidate the meaning of Scotus. In *Der Gottesbegriff des Johannes Duns Skotus*, Paderborn 1913, p. 7 he writes: 'Darum dient zur besseren Erläuterung vielleicht folgendes. Das reine, weisse Sonnenlicht ist real ein einziger Strahl und enthält doch in sich die sieben Regenbogenfarben. Diese sind also im weissen Sonnenstrahl *ex natura rei* vorhanden, ihrem sachlichen Gehalt nach. Ähnlich existieren in Gott seine

I turn now to the activities of the Divine intellect and will, and by considering these firstly as intrinsic I shall lead up to the primary application of the *distinctio formalis* as found in Scotus's speculations on the Trinity: secondly, I shall treat of their extrinsic or secondary operations as concerned with the world of creatures—cf. *Ox.* ii, d. 1, q. 1, n. 8 f.

Intrinsic activity is inseparable from a first and completely actual Agent Who acts *per se* and Whose end is Himself—*Ox.* i, d. 2, q. 2, n. 20. Its first stage, if for purposes of convenience we may be allowed to divide an eternal operation into stages, consists in the apprehension of the Divine nature by the Divine Intellect as its supreme and actually intelligible object—*Ox. ibid.*, n. 24 and q. 7, n. 21. Such an act being the production of an infinite intellect will be, of course, most perfect, especially since its object, its own essence, provides an adequate corresponding *notitia infinita*—*Ox.* i, d. 2, q. 7, n. 18 and *R.P.* i, d. 10, q. 1, n. 9. This immanent intellective activity within the Divine Being is what Scotus, together with other theologians, understands by the generation of the Son, though he differs from some of them [1] in maintaining that this first thought-act of the Father rests on His will and that the Son is not generated by the necessity of the Father's nature—*R.P.* i, d. 6, q. 2, n. 5; *Ox.* i, d. 6, n. 5 and 8.

In addition to this activity by which the Son is generated, God has a further intrinsic operation depending exclusively on His will, a faculty that, like His intellect, must be always active because its infinity excludes limitation. The activity of the Divine will consists in loving the Divine Essence and this is what is meant by the procession of the Holy Ghost—*R.P.* i, d. 17, q. 2, n. 3. This third Person must be infinite and perfect since He proceeds from the Father and the Son, and satisfies the Divine love; and possessing these qualities, He must be identical

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Essenz, sein Wille, sein Intellekt usw. real identisch und doch *ex natura rei*, ihrem eigenen Naturgehalt nach. Und wie man trotz der realen Identität der siebenfarbigen Strahlen doch sieben Definitionen oder Beschreibungen aufstellen müsste, um der vollen Inhalt und die verschiedenen Einflüsse dieser siebenfarbigen Lichtstrahlen auszudrücken, so muss man auch für die göttliche Essenz, den göttlichen Willen usw. trotz ihrer realen Identität eigene Definitionen geben, um ihrer formalen Verschiedenheit gerecht zu werden und ihren sachlichen Gehalt auszudrücken.'

[1] e. g. Henry of Ghent, *S. Theol.* a. 58, q. 2; Geoffrey of Fontaines, *Quodl.* v, q. 4; St. Thomas, *Sent.* i, d. 6, q. 1, a. 3.

with the Father and the Son, though as something produced, He is, like them, subsistent *per se*—*Ox.* i, d. 10, q. 1, n. 2 and *ibid.*, d. 11, q. 1, n. 2 f.; *R.P.* i, d. 10, q. 4, n. 2.

In proclaiming that the production of the Holy Ghost, like that of the Son, rests on the Divine will, Scotus does not suggest that either of these two Persons might not have been produced, for nothing that is of the infinite and simple nature of God could have been originally a potentiality. He really intends that their production was a self-expression free from all external influence. Hence, inasmuch as the will of God could not change His actual, perfect, and infinite nature, God may be said to understand and love Himself of necessity—*Quodl.* xvi, n. 2 and 7.

Looking now at this immanent Divine activity as something completed, so to speak, we see that the Divine nature exists in three Persons and that God involves a Trinity of Persons, a unity of Essence, and an order of origin—*R.P.* i, d. 3, q. 7, n. 2. The Persons have their own incommunicable Personality as something formally distinct from the communicable Essence—*Ox.* i, d. 2, q. 7, n. 38 and 41 and *Ox.* i, d. 5, q. 2, n. 15 f. They could not be really distinct since, as has been said, they have an identity of absolute perfection and infinity; besides, God is a simple Being. Again, were they so distinct, they would determine and contract the Divine Essence in much the same way as forms do matter and reduce it to a universal nature, but, as John Damascene[1] declares, Personal properties characterize the hypostasis and not the nature—*R.P.* i, d. 5, q. 3, n. 3; *Ox.* i, d. 5, q. 2, n. 17. On the other hand, the Persons could not be merely logically distinct,[2] since apart from the inconvenience of reducing the Trinity of Persons to a dependence upon our thinking, we should have to admit that the Father would give all that He has to the Son and that the Son, apart from the Divine Essence, could not have assumed humanity—*R.P.* iii, d. 1, q. 2, n. 9; *ibid.*, d. 5, n. 4.

Adopting the common view that the Persons are relations or modes of being of the Divine Essence, Scotus proceeds to explain in what manner he conceives the Persons and the Essence to be distinguished. 'Dico breviter quod relatio et essentia ita sunt in persona quod neutra est forma informans alteram sed sunt perfecte idem, licet non formaliter'—*Ox.* i, d. 5, q. 2, n. 17. This may be elucidated by further passages: 'Essentia non includit in ratione sua formali proprietatem suppositi nec e converso, et ideo potest concedi quod ante omnem actum intellectus est realitas essentiae quae est communicabilis et realitas suppositi qua suppositum est incommunicabile, et ante actum intellectus haec realitas formaliter non est illa, vel non est eadem formaliter illi—*Ox.* i, d. 2, q. 7, n. 44; and also 'Cum simplicitate divinae personae stat quod relatio non tantum per actum intellectus distinguitur ab essentia, quasi quod relatio sit nihil nec etiam distinguitur ex natura rei, quod relatio sit alia realitas a realitate essentiae.... Dico quod essentia et relatio sic distinguuntur quod ante omnem actum intellectus haec proprietas distinguitur ab essentia secundum quid.... Potest autem essentiae et relationis distinctio vocari distinctio ex natura rei, quia ita est non identitas eorum secundum quid, ac si utrumque ex natura rei actualiter, proprie et determinate existeret sine alio; . . . nunc autem si essentia et relatio in divinis definirentur, neutrum caderet in definitione alterius nisi ut additum: . . . differunt formaliter et habent non identitatem formalem et quidditativam' —*R.P.* i, d. 33, q. 2, n. 8–11; *Ox.* i, d. 2, q. 7, n. 48 f.

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[1] *De Fide Orth.* i, c. 8, *P.Gr.* 94: 824 f.

[2] William of Ware approached this view. Cf. his *Sent.* i, d. 3, q.2.

Here again (cf. pp. 306, 321, 353) we have the conditions of the formal distinction, viz. a perfect unity (God) in which exist characteristics (communicability and incommunicability) that cannot be included under one definition. The latter condition distinguishes it from the logical distinction and the former from a real distinction. Scotus admits that it is a *via media* and appeals to the authority of Bonaventura, not to that of Pecham or Richard (cf. pp. 205, 270). 'Potest dici secundum doctorem alium antiquum, scilicet secundum Bonaventuram, quod ⟨personae⟩ nec differunt tantum ratione nec omnino realiter, sed quasi medio modo scilicet secundum diversos modos habendi. Unde dicit in distinctione ista quod proprietas differt ab essentia non quia dicit aliam essentiam, sed modum alium se habendi, qui per comparationem ad essentiam vel personam dicit modum, nil addens: in comparatione vero ad correlativum vere dicit rem et distinctionem'—*R.P.* i, d. 33, q. 1, n. 14.

The whole point of Scotus's formal distinction as applied to the Trinity seems to be his desire to give some positive content to the concept of Personality in place of its usual connotation of an incommunicable *suppositum*.[1] In *Ox.* iii, d. 1, q. 1, n. 10 he even ventures to say that the Divine Persons are positive entities in God—'Persona divina non tantum habet negationem communicationis actualis et aptitudinalis, sed etiam habet repugnantiam ad communicationem et ut quod et ut quo; et repugnantia talis numquam potest esse nisi per entitatem positivam; et ideo sequitur personam istam numquam esse sine tali entitate; sed persona creata quia non repugnat ei communicari cum sit in potentia obedientali non est sic incommunicabilis et ideo non oportet sibi tribuere talem entitatem personalem.' Again, in *R.P.* i, d. 25, q. 1, n. 7 he says that the Divine Persons derive their incommunicability through some 'affirmatio', which he describes as an 'entitas, quae non est formaliter essentia, cui repugnat communicari.'

The orthodox theory that each Person of the Trinity is constituted by a relation of origin is true as far as it goes, and valuable inasmuch as it avoids the error of making the Persons distinguishable by absolute properties (cf. *R.P.* i, d. 26, q. 1, n. 5; *ibid.*, q. 2, n. 5 f.; *ibid.*, d. 28, q. 2, n. 13 and *Ox.* i, d. 26, q. 1), but since it does not make the Trinity more comprehensible (*Ox.* i, d. 2, q. 7, n. 7), Scotus prefers to start from Richard of Middleton's view that a relation is not nothing, and, passing through the stage of making a formal distinction between the essence and the relation, to postulate positive entities for the Divine Persons, since thereby stress is laid on the fact that, while the Divine Essence is not a genus and suffers no plurification, the *supposita* are three—*Ox.* i, d. 2, q. 7, n. 38 f.; *Ox.* i, d. 28, q. 2, n. 6 and *ibid.*, q. 3. For this reason he writes, 'Producere in divinis dicit relationem realem, communicare autem dicit relationem originis et quasi rationis'—*Ox.* i, d. 5, q. 1, n. 9. We must conclude, then, that the intention of Scotus seems to be the saving of the Personalities from submersion in the Divine simplicity, but he takes care not to make them actuating forms of the Divine Essence. 'Relatio originis non comparatur ad essentiam ut actus vel forma informans vel perficiens ipsam ut potentiam immediate receptivam alicuius perfectionis, quia est infinita'—*R.P.* i, d. 31, q. 3, n. 13; *ibid.*, d. 5, q. 3, n. 4. Such a view would savour of the impossible triple existence whereas Scotus particularly warns us that if the word 'subsistent' is applied to the Persons it must be taken to mean an *esse incommunicabiliter per se* and not a multiplication of *ens* [1]—cf. *Quodl.* iv, n. 20.

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[1] Similarly the formal distinction between the various properties of each Person enriches the concept of Personality and gives some meaning to the common doctrine that the properties of innascibility and of paternity in the Father are not the same, for the Father is not the Father in that He is unbegotten—*R.P.* i, d. 33, q. 3, n. 3 f. So too, the two existences in Christ are formally distinct—cf. *Ox.* iii, d. 6, q. 1, n. 2 f. For Scotus's teaching on the properties of Christ and of the Holy Ghost, cf. P. Minges, 'Beitrag zur Lehre des Duns Scotus über die Person Christi' in *Theol. Quartalschrift*, Tübingen 1907.

We come now to the secondary or extrinsic activities of God. As far as the Divine intellect is concerned, this activity consists in the apprehension of the Divine Essence as imitable by creatures. It is the Divine Essence as it is in itself, and not, as some[2] say, under a *relatio rationis* to a creature, that is the *ratio* of knowing that creature. Were their opinion true, God would require a second *relatio* to understand the first, and so on, *ad infinitum*. Moreover, the *relatio* would imply (*a*) a passivity in respect of objects which would mean that the Divine knowledge was caused by objects, and (*b*) a limitation of the Divine Essence, which is unnecessary where an infinite essence capable of representing an infinity of objects is concerned—*Ox.* i, d. 35, n. 5 and 6. Besides, the *relatio* could only be posterior to the understanding of a creature, for a relation is known only when its terms are known—*Ox.* i, d. 35, n. 10.

Even though the Divine Essence as it is *in se* is the *ratio* of knowing creatures, the operation involved is rightly called secondary because such a *ratio* has not the complete adequacy for the Divine intellect as the Divine Essence apprehended *sub ratione mere absoluta* has. Like all intelligible being it has only an *esse diminutum* or *secundum quid* due to the Divine intellect and thus it stands in contrast with the *esse reale* of the Divine Essence. An *esse essentiae simpliciter* has been ascribed to the *ratio*[1] but such an *esse* is irreconcilable both with creation as a production *ex nihilo* and with the real being that a thing is held to acquire by creation—*Ox.* i, d. 36, n. 3 f. Again, the operation involved is rightly called secondary because the *ratio* is not formally eternal. 'Licet essentia divina ab aeterno fuerit causa exemplaris lapidis in esse intelligibili, tamen aliquo ordine prioritatis fuerunt personae prius productae quam lapis in isto esse. Et cum dicis in essentia non est prius nec posterius, verum est in ea, tamen est ordo originis ut comparatur ad personas intrinsecas et ad intra productas et ut comparatur ad quodcumque ad extra productum, quia quodcumque aliud a Deo productum in quocumque esse, etsi sit aeternum, tamen dependet a personis prius origine productis quam aliquid producitur'—*Collat.* xxxi, n. 5; cf. *R.P.* ii, d. 1, q. 2, n. 11. Lastly, the *ratio*, unlike the Divine Essence, is not formally necessary, because it is produced by the Divine intellect—*R.P.* ii, d. 1, q. 2, n. 7; *Ox.* iii, d. 32, n. 3; *Ox.* i, d. 30, q. 2, n. 1.

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[1] *R.P.* i, d. 25, q. 1, n. 4 gives a brief account of the development of the word 'person'. 'Per Boethium, *De Duabus Naturis*, nomen personae primo significabat eos qui in comoedia seu tragoediis ludorum theatrorum alios repraesentabant, loco quorum cantus praeferebant, propter quod histriones repraesentantes dignos et honorabiles viros, personae vocabantur, quia secundum Boetium personae secundum rationem vocabuli dicta est a personando, hoc est perfecte et expressa voce sonando; quia illi histriones per quandam larvam, faciem de stanno vel de cupro factam, quae repraesentabat illum cuius vice cantabant, magis resonabant.

Sed tempore Augustini nomen persona fuit translatum ad divina, ad repraesentandum aliquid dignitatis in Deo: unde a tempore Augustini tantum valuit nomen personae quantum substantia intellectualis.'

Scotus, like his contemporaries, seems to know nothing of Tertullian who, according to Professor C. C. J. Webb's *God and Personality*, London 1918, vol. i, p. 44 f, gave 'persona' currency as a theological term.

[2] Cf. St. Thomas, *S. Theol.* i, q. 15, a. 2 corpus concl. and Henry of Ghent, *Quodl.* v, q. 3; ix, qq. 1, 2.

That God *can* know creatures through His Essence is deducible from the fact that effects are in some way in their cause; hence, when God, Who knows His Essence perfectly, knows it as a cause, He knows that to which His causality extends—*De Primo* iv, n. 14; *R.P.* i, d. 36, q. 2, n. 9. That it is fitting for Him to know in such a manner follows from the absence of any passivity in Him, which could be moved by external objects, and from the incongruity of either supposing the supreme Being to be subject to the influence of creatures or ignoring the fact that His knowledge is the very reason for their existence—cf. *Ox.* i, d. 39, n. 10; *De Primo*, iv, n. 17 f.

It is clear, then, that God understands intuitively and not discursively, for knowledge by *species intelligibiles* or by principles and conclusions would be superfluous to a Being Whose intellect is identical with its act and with that which is understood—*R.P.* i, d. 35, q. 1, n. 18 and 34. It is because universal representations are not involved in the Divine knowing that a stone is said to have the truest type of existence in the eternal intellect, although, 'non habet ibi esse verius sui vel esse lapidis quam lapis extra. Aliter enim Deus verius esset lapis secundum esse lapidis extra quia quicquid est in Deo est Deus'—*R.P.* iv, d. 1, q. 1, n. 15; *Ox.* iv, d. 1, q. 1, n. 20.

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[1] Cf. Henry of Ghent, *Summa*, a. 21, q. 4; *Quodl.* viii, q. 9; ix, qq. 1, 2; xi, q. 3.

The intuitive knowledge of God naturally extends to every individual because every individual, like every species,[1] is an imitation of His goodness. '⟨Deus⟩ intelligit distinctas entitates positivas plurium individuorum quae maiorem perfectionem ponunt in intellectione quam intellectio unius illorum quia intellectio uniuscuiusque entitatis absolutae positivae, ut est eius, est aliqua perfectio'—*De Primo* iv, n. 17; *R.P.* i, d. 36, q. 2, n. 8 and q. 4, n. 16 f. Besides, God is primarily interested in individuals as His extension of His providence to them shows—*R.P. ibid.*, q. 4, n. 14; *Ox.* ii, d. 3, q. 7, n. 10; *Quodl.* xxi, n. 15. He has not merely a confused knowledge of singulars like the created artificer, but knows distinctly all that is in the effect, e.g. He knows all the concomitant accidents of wood including its power to float. Matter could not prevent God knowing singulars because, as we have seen, matter itself is known by God. Lastly, if an individual could be understood in its specific quiddity, we should have to conclude that it adds nothing to the species unless negation or privation—*R.P.* i, d. 36, q. 4, n. 10 f.

There are only three varieties of individuals unknown to God, namely, impossible, evil, and contingent beings. Impossible beings cannot be known for they are self-contradictory and, therefore, most truly nothing—*Quodl.* iii, n. 2; *R.P.* i, d. 43, q. 1, n. 13; *Ox.* i, d. 36, n. 14. Evil beings cannot be known because God knows things only through His essence and, therefore, the objects of His knowledge must imitate the goodness of His essence. Moreover, evil is privation and privation has no *propria ratio*, but is known only through positive concepts—*R.P.* i, d. 36, q. 4, n. 23. Contingent beings, which Scotus admits offer a difficult problem, are unknowable, for while humanity and whiteness are both eternal concepts, the relation between them is not necessary but dependent on the Divine will; otherwise all men would have to be white and all contingency would vanish. God knows only necessary complexes, e.g. that the whole is greater than the part, and the *possibility* of contingents. If He knew the actual temporal coexistence of any two eternal concepts, finite beings would exercise a causality on His intellect —*Ox.* i, d. 39, n. 10 and 23 f.; *R.P.* i, d. 38, q. 2, n. 3 f.

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[1] The species, as the communicable element in things, must have its proper idea in the Divine mind for since God produces the whole thing He knows all that is in it. In this sense, the species becomes the *universale ante rem*, while as the common nature in things it is the *universale in re*, and as comprehended in knowledge it is *post rem*.

With regard to the Divine will, Scotus holds that its primary function is to give to the possible natures in the Divine intellect a real existence. Such extrinsic production is most appropriately called causation because, contrary to some,[1] before their external existence, creatable things had no true and real *esse* from their cause but only an *esse cognito*—*R.P.* ii, d. 1, q. 2, n. 4. In the actualization of these possible natures the activity of the Divine intellect must have preceded that of the will, for an idea is defined by Augustine[2] as a 'ratio aeterna in mente divina secundum quam aliquid est formabile extra ut secundum propriam rationem eius', and, therefore, depends on the intellect and not on the will of God.[3] 'Intellectus divinus inquantum aliquo modo prior est actu voluntatis divinae, producit ista obiecta in esse intelligibili'—*Ox.* i, d. 3, q. 4, n. 20. 'Deus omnia causat vel causare potest non irrationabiliter, ergo rationabiliter, igitur habet rationem secundum quam format. . . . Omne formabile potest formare secundum rationem propriam sibi aeternam in mente suo'—*Ox.* i, d. 35, n. 12; *De Primo*, iv, n. 5 f.; *R.P.* i, d. 36, q. 4, n. 12.

This priority of intellect,[4] however, does not destroy the freedom of the Divine will, for the ideal possible natures are not actualized of necessity simply because they exist in the Divine intellect. The will is free to actualize or not to actualize some or all of the Divine ideas, its freedom meaning absence of external coercion—*R.P.* ii, d. 1, q. 3, n. 11. There must be direction by the intellect else the will becomes purely arbitrary and despotic, Scotus thinks, but the direction need not destroy the self-determination of the will. 'Voluntas divina necessario vult bonitatem suam et tamen in volendo eam est libere'—*Quodl.* xvi, n. 8. 'Sicut universaliter libertas stat cum apprehensione praevia, ita summa libertas stat cum summa apprehensione praevia'—*Ox. prol.*, q. 4, n. 34; *De Primo*, iv, n. 10. 'Sicut non est alia causa quare voluntas vult nisi quia voluntas est voluntas, ita non est alia causa quare voluntas vult sic necessario vel contingenter nisi quia voluntas est voluntas, nam haec est immediata: "Voluntas vult"'—*R.P.* i, d. 10, q. 3, n. 4.

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[1] Cf. p. 359, n. 1 *supra*.

[2] Cf. *De Div. Quaest. 83*, § 46, *P.L.* 40: 30.

[3] Scotus has been interpreted as saying that the ideas of God do depend on His will by those who wish to make him an extreme voluntarist, e.g. A. Vacant, *D'où vient que Duns Scot ne conçoit point la volonté comme St. Thomas d'Aquin?* Fribourg, Internat. Scient. Cath. Congress, 1898, p. 642 and R. Seeberg, *Die Theologie des Johannes Duns Scotus*, Leipzig 1900, p. 163.

[4] From this we see that both in his doctrine of the internal and external activities of God and in his theory of the order between the Divine attributes Scotus makes the Divine will to be secondary to the intellect. Hence he does not regard the will as the formal nature of God, as is supposed by Vacant, *op. cit.* Cf. P. Minges, *Der Gottesbegriff des Duns Skotus*, &c., Vienna 1906, ch. 1.

On account of its conformity to the Divine intellect, the Divine will can actualize only that which the intellect knows, and hence, it cannot will evil or the impossible or that which involves contradiction—cf. *R.P.* i, d. 47, q. 2, n. 2; *Ox.* iv, d. 46, q. 1, n. 6. On the other hand, because God has not been obliged to realize all His ideas, He might yet produce another world order in which matter could exist without form (*R.P.* ii, d. 12, q. 2, n. 9), a space outside the world (*Ox.* i, d. 39, n. 9), or creatures apart from time (*Ox.* ii, d. 2, q. 4, n. 13). In fact, there is no limit to the absolute power of God.[1] He could create grace in the devil or in a soul existing in mortal sin, He could save sinners without Christ, or He could produce immediately what is usually produced by secondary causes—*R.P.* i, d. 42, q. 2, n. 7; *R.P.* iv, d. 15, q. 1, n. 7 and d. 16, q. 2, n. 27; *Ox.* iv, d. 15, q. 1, n. 6. Anything that imitates the Divine essence and is known by God to be good is creatable (*Ox.* i, d. 3, q. 5, n. 15), and it is in this sense that God is omnipotent—*Quodl.* vii, n. 4. The good is such because God knows it as imitating His Essence and not because He wills it. 'Prima voluntas . . . quae vult alia a se propter suam bonitatem vult et propter obiectum primum' —*R.P.* ii, d. 1, q. 3, n. 15. Only because the good is in a sense convertible with all being (cf. *Ox.* iv, d. 49, q. 2, n. 24 and *Ox.* i, d. 3, q. 5, n. 14,) and because God must create according to His good ideas, is there any truth in interpreting Scotus as saying that things are good because God willed them.[1]

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[1] The absolute power of God applies to the infinite mass of thinkables which the Divine Will might realize; His ordained power applies to His execution of a determined universe 'Aliquid est possibile Deo dupliciter: vel secundum potentiam eius absolutam, qua potest omne id quod non includit contradictionem aut secundum potentiam eius ordinatam, secundam quam fit omne illud quod consonat legibus divinae iustitiae et regulis sapientiae eius'—*R.P.* iv, d. 1, q. 5, n. 2, cf. *Ox.* i, d. 44, n. 1. M. Landry has overlooked Scotus's distinction between absolute and ordained power when he writes, 'L'autorité de Dieu pourra s'exercer avec la pleine indépendance d'un despote asiatique; elle ne rencontrera plus aucun obstacle. Ni barriere morale ni barrière ontologique n'arrêteront ses ordres ou ses miracles'—*op. cit.*, p. 344. For a criticism of similar interpretations of Scotus in Landry, cf. Longpré, *op. cit.*, pp. 174 f. 52 f.

Hence, contrary to the interpretation of many, the God of Scotus does not arbitrarily will creatures.[2] 'Deus universa propter se creavit, unde Deus diligens se, propter se fecit haec'—*R.P.* iv, d. 49, q. 7, n. 10. 'Quidquid Deus facit, propter se facit, . . . et ex charitate perfectissima quae ipse est, facit; ergo eius actus est ordinatissimus tam ex fine quam ex principio operativo'—*Ox.* ii, d. 27, q. 1, n. 2. 'Item, primum efficiens dirigit effectum suum ad finem ipsum; ergo vel naturaliter vel cognoscendo et amando illum; non primo modo, quia non cognoscens nihil dirigit nisi in virtute cognoscentis; sapientis enim est prima ordinatio'—*De Primo*, iv, n. 5. 'Nihil est in universo quod non habet ordinem essentialem inter entia, quia ab ordine partium est unitas universi'[3]—*De Primo*, iii, n. 7, 13, and 14. Hence Scotus can conclude, 'In quocumque opere naturae manifestatur summe potentia et sapientia divina'—*Ox.* iii, d. 13, q. 4, n. 17.

The granting of existence to the ideal possible natures in no way reacts on God, for the act of will by which God confers existence is an eternal act, there being no before or after where there is no potentiality. Likewise, the temporal realization of that act does not affect God, because creation is not truly action. 'Similiter dico de creatione quod non est actio ut actio distinguitur contra relationem; quia actio talis, cum sit respectu alicuius passi praesuppositi, non posset esse productio alicuius secundum totum esse suum, sed tantum productio eius secundum partem formalem, cui praesupponitur pars materialis transmutati: creatio vero est productio totalis rei, quia de nihilo, et ideo non potest esse actio de genere actionis . . . illa productio, qua creatura producitur, est formaliter in genere relationis . . . nam nihil absolutum ponitur in Deo in comparatione ad creaturam; igitur productio, qua Deus dicitur creaturam producere, non dicit aliquid absolutum in eo; igitur est respectus alicuius'—*R.P.* iv, d. 13, q. 1, n. 5 and 6 and *ibid.*, d. 43, q. 2, n. 34. 'Creare est formaliter referri ad creaturam'—*ibid.*, n. 9.

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[1] Minges in opposing those who make Scotus an excessive indeterminist says, 'Deshalb ist es vom Skotistischen Standpunkte aus ganz korrekt zu sagen, dass die Dinge gut, d. h. real gut sind, weil Gott sie will, und dass nicht umgekehrt Gott sie will, weil sie gut sind'—*Der Gottesbegriff des Duns Skotus*, p. 77. In *ibid.*, pp. 101–19 Minges deals with the moral law in reference to the Divine will. The possibility of the moral law being dispensed by God is discussed also by Klein, *Der Gottesbegriff des Johannes Duns Skotus*, pp. 161–84, cf. Longpré, *op. cit.*, p. 78 f.

[2] Richard of Middleton seems to be more of a voluntarist than Scotus, cf. p. 273.

[3] Cf. Longpré, *op. cit.*, pp. 62–4 for the prominence of order in Scotus's system.

Thus, with Richard, Scotus says that only the creature, because it has received a being of its own through creation, stands in some new relation, for God, as the other term of the relation, is perfectly simple and therefore unchangeable—*Ox.* i, d. 30, q. 2, n. 14; *Ox.* ii, d. 1, q. 2, n. 5; in Him there is, as Augustine 5 *De Trin.* c. ult.[1] says, only a new *appellatio* of relation through the created intellect comparing itself to the Creator—*Ox.* i, d. 30, q. 2, n. 3 and 4. 'Potest in Deo poni aliqua relatio rationis nova quidem, sicut illa quae causatur in eo per actum intellectus nostri considerantis ipsum; . . . nulla relatio nova potest esse in Deo per actum intellectus sui, comparando essentiam suam ad aliquod temporale, . . . sed istud ⟨est⟩ propter hoc quod intellectus divinus ad quodcumque comparat essentiam suam, in aeternitate comparat licet non pro aeternitate'—*Ox.* i, d. 30, q. 2, n. 11. 'Breviter patet quod nulla est relatio nova in Deo per se terminans novam relationem creaturae; est tamen aliqua nova per actum intellectus creati, nulla autem nova per actum intellectus sui'—*ibid.*, n. 12.

Could creation have been eternal? Scotus, unlike his predecessors, offers no definite opinion on this question. Certainly he allows that things are contingent and therefore must have been created because 'quod non est a se non potest habere esse nisi a causa efficiente'—*Quodl. xxi*, n. 4. But is their temporal creation a question of faith or is it demonstrable by reason? Some, he tells us, assert that it is a question of faith, and they employ among their arguments the following: (1) We have no medium to prove that an eternal creation is impossible, for the extrinsic medium, the will of God, is unknowable, and the intrinsic medium, the 'quod quid est ipsius factibilis' must be abstracted from the here and now, and so cannot be the 'ratio demonstrandi hic et nunc'; (2) If God does not act *per motum*, He could produce a coeval effect; (3) An infinite duration need not be regarded as destroying the limited nature of things, for an entitative limitation does not become more perfect whether a thing endures for ten years or for one; and (4) Metaphysics, as opposed to Physics, abstracts from movement and so is able to consider an efficient cause apart from movement and the giving of *esse per motum*. Therefore the first efficient cause can be considered as giving *esse sine motu* and not only *esse per motum vel mutationem*—*Ox*. ii, d. 1, q. 3, n. 2–5; *R.P*. ii, d. 1, q. 4, n. 3 and 4.

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[1] *Ibid.*, *P.L.* 42: 922.

Scotus contends that these arguments are not beyond impeachment. To the first he replies that we do know naturally that God cannot will the impossible, and therefore, only if we knew that an eternal creation included a contradiction should we know that God could not will it. Against the intrinsic medium he urges, 'Creatura potest esse medium demonstrandi inceptionem existentiae eius. . . . Licet quod quid est contingenter se habet ad existentiam actualem vel non actualem, et ideo non sit medium demonstrandi existentiam absolute, nec aliquam conditionem existentiae absolutam, alicui tamen *quod quid est* potest repugnare aliqua conditio existentiae; et ideo potest esse medium demonstrandi; ita quod existentia sub tali conditione potest demonstrari per *quod quid est* ipsius, sicut quidditas lapidis, licet in se non includat existere; tamen sibi repugnat ex se esse increatum; et ideo ex ratione huius quidditatis potest concludi quod non habet esse increatum nec sempiternum'—*Ox*. ii, d. 1, q, 3, n. 9; *R.P*. ii, d. 1, q. 4, n. 18.

Against the second argument Scotus protests: 'Neque propter hoc quod agens agit per motum neque per mutationem est causa quare non potest habere terminum coaevum: igitur, quia si Deus possit habere ad extra aliquem effectum aeternum, ita bene posset habere illum per motum, sicut non per motum'—*R.P. ibid.*, n. 19. To the third argument he replies, 'Sed hoc nihil est, quia etiam coexistens Deo hodie non propter hoc aequatur aeternitati cui coexistit hodie; quia etiam aeternitas ut coexistens huic diei est infinita et independens: et creatura, ut hodie coexistens aeternitate est finita et dependens; et ideo non coaequatur sibi. Oportet igitur dicere quod sempiternum esse aliquam illimitationem dicit in creatura unde repugnet sibi: sed unde sit illa illimitatio et repugnantia, quilibet ostenderet per illam rationem fundamentalem quam pro se poneret'—*Ox. ibid.*, n. 12. To the fourth he objects that not all that is conceived abstractly by the intellect can actually exist thus. 'Ideo, licet ⟨efficiens⟩ possit concipi dans esse sine mutatione et novitate, non tamen potest esse in re dans esse nisi dat esse novum'—*R.P. ibid.*, n. 21; *Ox. ibid.*, n. 15.

If Scotus cannot assent to the arguments for an eternal creation, neither can he accept those of the temporal creationists. These contend that since the world is made, either 'factio manet semper cum esse mundi' or it began to be in some instant, and they suppose that the first alternative is impossible because it involves a choice between two inconveniences: (*a*) the world is in successive or continuous being and so is not permanent, and (*b*) causation is the same as conservation.[1] Again, the temporal creationists argue that if the world were produced from eternity, its production would be necessary since, as Aristotle in II *Periherm.* c. ult.[2] says, all being so long as it is has being necessary in itself. Hence the world would never have been in potency. Lastly they say that an eternal creation would involve an infinite number of men because of the incorruptibility of the rational soul, and they point out that Aristotle has said that an actual infinity cannot exist—*Ox.* ii, d. 1, q, 3, n. 6–8; *R.P.* ii, d. 1, q. 4, n. 5, 6, and 12.

To the first of these arguments Scotus objects that a world that did not begin to be at some instant need not imply successive or non-permanent being any more than the eternal generation of the Son in the Trinity does. Succession involves a sequence of parts and permanency means simply the conservation of the *prius* and *posterius*. Again, conservation can never be the same as causation (cf. *infra*). To the second argument he replies, 'Causa non causat inquantum praecedit effectum duratione, sed est causa inquantum praecedit effectum natura: si igitur omnis causa pro illo instanti pro quo causat, necessario causat et nulla contingenter; omnis causa inquantum causat, necessario causat et nulla contingenter'—*Ox. ibid.*, n. 17. To the third he says that Aristotle and Avicenna in 6 *Met.* c. *de Causis*[1] deny only an infinity in causes ordained *per se* and not *per accidens*, because the latter are successive and never *infinitae simpliciter*. Besides, an infinity of souls need not be involved in an eternal creation, for God cannot create an infinity of souls in one day even though it has an infinity of instants, and what He cannot do in one day, on account of the infinity of instants being merely potential, He cannot do in a past infinity —*Ox. ibid.*, n. 16–20.

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[1] Cf. Henry of Ghent, *Quodl.* i, q. 7 and 8; ix, q. 2.

[2] Cf. *ibid.*, c. 3, f. 51^rb.

In addition to creation, conservation is an operation included in the secondary activity of the Divine Will. While creation concerns the becoming of the world and the relation of an absolute cause to a non-being that will receive existence, conservation concerns the actual being of the world and the relation of an absolute cause to a previous immediate being. 'Conservatio est datio esse post idem esse in comparatione ad tempus, non tamen in comparatione ad aeternitatem cum in tali mensura non sit prius. Sed creatio est datio esse post non esse, quod non esse praecedit esse natura vel duratione'—*R.P.* ii, d. 1, q. 4, n. 7.

Neither creation nor conservation implies that God in some way exists in things, for if the contact between a natural agent and recipient need not be *per essentiam* (cf. p. 287), much less so is it in the case of God and creatures, since the more efficacious a being is, the better is it able to act at a distance. Hence if God creates and conserves all things, He need not be in all things—*R.P.* i, d. 37, q. 2, n. 6. In *Ox.* i, d. 19, q. 2, n. 10 Scotus speaks of an 'illapsus essentiae divinae respectu creaturarum', but he continues 'ad quem illapsum concurrit simul immensitas naturae divinae et eius manutenentia'. Again, his meaning is explained by two other statements, namely, 'Quia autem omni rei illabitur ratione suae illimitationis, sic est in omnibus per essentiam'—*Ox.* i, d. 3, q. 5, n. 6, and, 'In illapsu generali Deus illabitur cuilibet creaturae ad esse et operationem sibi convenientem'—*Ox.* iii, d. 2, q. 1, n. 16. In any case, this *illapsus* could not imply pantheism as many neo-Thomists suggest, for it depends on the free will of God, and is proportionate to the grade of beings. Thus Scotus writes, 'Potest enim negari illa propositio, quod Deitas per illapsum verius perficit essentiam ⟨animae⟩ quam potentiam,[1] quia illapsus in essentiam ut essentia est quodammodo generalis toti creaturae, licet unicuique proportionaliter secundum suum gradum entitatis: sed ille qui est essentiae ut obiecti in potentiam, est specialis naturae nobilissimae. Est ergo aliquis illapsus in potentiam nobilior illo illapsu qui est in essentiam, licet ille qui est in essentiam ad esse sit principalius essentiae quam potentiae, sicut et esse. . . . Exemplum: perfectissimus illapsus est in naturam humanam ⟨Christi⟩ ut potentialiter unitam Verbo; nec tamen ille est formaliter beatificus . . . quamvis iste Doctor dicat contrarium ut ibi dictum est. Illapsus autem Dei trini in Michaelem qui est simpliciter minus perfectus, est simpliciter beatificus'—*Ox.* iv, d. 49, q. 2, n. 10. Similarly, in *Quodl.* v, n. 26 he says, 'Dico: nullum creatum est pars Dei, cum Deus sit simplicissimus; sed omne finitum, cum sit minus illa entitate infinita, conformiter potest dici pars, licet non sit secundum aliquam proportionem determinatam, quia exceditur in infinitum. Et hoc modo omne aliud ens ab ente infinito dicitur ens per perfectionem.'

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[1] *Ibid.*, c. 2, f. 92ʳa.

[1] This was the view of Henry of Ghent, cf. *Quodl.* xiii, q. 12.

CONCLUSION

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THE THEORY OF BECOMING

THE Scholastic theory of the factors involved in becoming, in the widest sense of the term, was derived from Aristotle, who had combined the Heraclitean and later Ionian notion of reality as becoming with the Parmenidean conception of reality as being. Following Aristotle (*Met.* 1032a 12 f.) the Scholastics defined becoming as the passing of the potential into actual being, and held that it involves three things (*a*) matter with a potency for that into which it is to be changed, (*b*) form, the actualizing factor with a capacity to satisfy the potency of matter, and (*c*) an agent that can bring about the actualization of matter by form, for the merely potential can never initiate a process of becoming.

As regards matter in this dynamic aspect, there were two important points on which the Schoolmen insisted, firstly, the necessity of its existence if we are to avoid the conclusions that the agent produces out of nothingness that which it brings into existence [1] (a conclusion that would mean that creatures have the power to create) and that it annihilates that which is changed. Thus by positing the necessity of matter, they recognized that permanence as well as succession is necessary for change. Secondly, they insisted that matter must have a potency for the form that it receives, for obviously the matter of various beings can be changed only within certain limits, e. g. the matter of the human semen can become only the body of a man and not that of a horse. This point, first brought out by the Aristotelian theory of the eduction of forms as opposed to the Platonic view of their induction,[2] emphasized the facts that matter and form are not two mutally opposed natures; that that which undergoes change is not entirely passive and at the mercy of agents; and, lastly, that the whole reality of a being is not confined to what we know at any given moment.

The question of the relation between this potency and matter was sharply focussed in Franciscan thought. Aristotle had regarded them as distinct, though not separate, when he asserted that the principles of becoming are three—matter, privation, and form—but because privation in comparison to form has no positive reality, they are reducible to two—*Met.* 1069b 33, 1070b 18, and *Phys.* 190b 30sq. At times, as Thomas of York gladly noted, Aristotle stressed the distinction between matter and privation to the utmost, as, for instance, when he referred to privation as an accident of matter, when he spoke of things coming from privation rather than from matter, when he remarked that matter remains while privation is destroyed in change, and when he assigned to privation a certain degree of actuality—*Phys.* 190b 26; *Met.* 1033a 11; *Phys.* 192a 25 f.; *Met.* 1019b 7. Augustine, inspired by Stoicism and by Neo-Platonic dynamism, supplemented this view of Aristotle by his theory of *rationes seminales*, which, at least as far as organic beings were concerned, made the potency of matter active and not merely passive (*De Trin.* iii, capp. 8 and 9; cf. p. 375 *infra*). Hence the early Franciscans could appeal to Aristotle and Augustine, as well as to Averroes (cf. p. 58 *supra*), for their belief that privation and negation are not synonymous, though at the same time they admitted that the being of privation could be only of the most attenuated kind. Privation, as pre-adaptation for the form to be received, saved the agent from having too great an efficacy and becoming from being a violent process—results inevitable if the doctrine of Avicenna and Algazel that forms come entirely *ab extra* (p. 73 *supra*) be admitted. Hence it harmonized (not merely superficially, as Scotus says) with the dominant thought in Aristotle that the operative powers in natural matter can be nurtured in much the same way as the matter of the artist can be adapted.

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[1] Cf. Aristotle, *Met.* 1062b 24, *De Caelo*, 270a 12.

[2] See C. Baeumker, *Das Problem der Materie*, &c., Münster 1890, p. 241.

But Scotus was right in rejecting the claim of its supporters that it accounted for the difference between generation and creation, for admittedly it presupposed matter, and creation excludes matter. Further, when, as Bacon pointed out, proper recognition is given to the part played by the agent in the development of these pre-adaptations, the stability of nature is ensured and the reduction of generation to alteration avoided. As we have seen, it was this last danger, as well as the unjustified interpretation of the *rationes seminales* as some definitely incomplete pre-existence of the form reducing the role of the agent, that led Richard of Middleton and Scotus, like St. Thomas,[1] to deny the existence of an active potency in matter (an existence that the Dominican Kilwardby had been anxious to retain),[2] and to conclude that matter is entirely indifferent to the incoming form.

The importance of the agent in actualizing the potency in matter, whether that potency be considered as active or passive, was universally admitted on the general maxim: *Quidquid movetur ab alio movetur* (cf. Aristotle, *Phys.* 241b 24). Its function had been compared by Aristotle to that of the artist, and this comparison was reproduced by the Scholastics in their insistence that the natural agent must possess at least *in virtute* that which it is to produce. Such a possession, though of necessity difficult to understand, was intended firstly to avoid any emanational exhaustion of the agent's power during its operation on other beings, and secondly to preserve the similarity posited by Plato's theory that the effect must mirror its cause, and by Aristotle's theory that the recipient must become like the agent. The successful manner in which Bacon, under the inspiration of Grosseteste, tackled the first difficulty has been indicated on pp. 124 f. *supra*.

No agent, according to the Scholastics, was isolated in its operations, for all terrestrial processes of becoming, other than creation, were conceived of as involving the action of the celestial bodies and of the angelic movers[3] of these bodies, as well as the indirect co-operation of God,[4] without any destruction of the real operations of the agent.[5] This opinion, especially in conjunction with Bacon's theory of the continuous activity of creatures, may be taken perhaps as an anticipation of the later view that the full cause of an event must take into account the entire universe.

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[1] *Sent.* ii, d. 18, q. 1, a. 2 and *De Pot.* q.3, a. 8.

[2] Cf. p. 192, n. 1 *supra*.

[3] The indirect influence of the angels was allowed by Augustine in *De Trin.* iii, capp. 8 and 9 and *De Civ. Dei*, xii, c. 25. Plato in *Timaeus* 41 spoke of God as using created gods as intermediaries in the making of man, and Avicenna had allowed the intelligences a creative power.

[4] There is a unique passage in Aristotle in which God is coupled with nature, 'God and nature make nothing that has not its use'—*De Caelo*, 271a 33.

[5] The Mutakallimûn went to the excess of allowing the continuous creation of accidents.

TYPES OF BECOMING

The problem of the becoming or origin of the world, a problem that had occupied the earliest philosophers, Plato had attempted to solve by his three first principles: God, Ideas, and Matter, God employing the Ideas to mould the intractable character of the eternal chaotic matter from which all things were produced according to reason and harmony.[1] Aristotle avoided this anthropomorphic view by declaring that the world was co-eternal with God. Basil, whom we select from the Fathers as, with the exception of Augustine, having the greatest influence on the Franciscans, objected both to Plato's false analogy between art and divine activity and to Aristotle's eternal world, and, following *Genesis*, insisted that primary matter itself was created or produced out of nothingness by God and then became the ground for the temporal manifestation of the Divine Ideas. This doctrine was assured to posterity through Augustine who on this point rejected the Stoic and Plotinian [2] theory of matter coming into existence by a fading of the lowest spiritual power, a theory that, either in its original form or in the turn given to it by Jamblichus and Proclus (they regarded matter as emanating immediately from the highest Intelligence), later re-encountered Christian thought through the Arabian Neo-Platonists.

The immediate products of creation formed an interesting ground for speculation, for the early Christians, many of whom were converts with philosophical training, were well aware of the two accounts of the order of creation in *Genesis*. Some, like Origen, finding it impossible to reconcile *Genesis* with Greek scientific theories, advocated an allegorical interpretation, while others followed the attempt of Ambrose to retain the literal sense. But generally speaking, the Fathers, as far as corporeal things were in question, accepted Plato's theory that the four elements were produced first, some maintaining only a logical priority of matter, and others, e.g. Basil and Chrysostom, a temporal priority of unformed matter.

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[1] On the necessary character of Plato's primary matter cf. A. E. Taylor, *Plato*, London 1926, p. 454, and on the possibility of Plato intending a temporal production, as Aristotle supposed, cf. *ibid.*, pp. 442 f. The medieval thinkers interpreted him as teaching a confused pre-existence of matter from all eternity.

[2] In *Reactions between Dogma and Philosophy*, London 1920, p. 333, Wicksteed remarks, 'Clement of Alexandria anticipates Plotinus chronologically in formulating the Neo-Platonic emanational theory of the universe, with its graded divine Trinity, continuous, so to speak, with the ranks of celestial spirits and the world of man.'

Augustine accepted this latter view (*De Genesi contra Manich.* i, c. 7), but inspired by the dynamism of the Stoics, which had already influenced Justin, Origen, and Gregory of Nyssa,[1] he pictured the earth as endowed by God at the moment of its creation (*Conf.* xii, c. 29)[2] with potentialities or *rationes primordiales*, which, as opportunity arose, had the power of developing themselves into the organic world, including the body of man, though not his soul[3]—*De Trin.* iii, c. 8 and 9; *De Gen. ad Litt.* v, 4, 5, and 23; vi, 1, 6, and 18; vii, 22. Accordingly matter being created with only these *rationes* over which it had causal but not temporal precedence (*Conf.* xii, c. 29; *De Gen. ad Litt.* v, 5), and creatures being in it, as Hugh of St. Victor said, *in forma dispositionis* (cf. p. 217 *supra*), Augustine spoke of it as almost nothing, as without form, but formable because it is the *capax formarum*—*Contr. Advers. Leg.* i, c. 8; *De Nat. Bon.* c. 18; *Conf.* xii, 8.

The majority of Augustine's successors adopted the old patristic view, some like Eriugena and Gilbert de la Porrée holding the temporal priority of primary matter; but Thierry of Chartres (d. 1155), one of the most daring of medieval thinkers,[4] was probably inspired by Augustine when he reduced the role of the Creator to the minimum by supposing that the work of the six days of *Genesis* was merely a natural unfolding of the powers of chaotic first matter.[5] The more important views following Grosseteste's original theories of space and of the celestial and elemental spheres as arising from the combined action of primary matter and *lux* have been outlined in the foregoing pages.

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[1] Cf. H. Meyer, *Gesch. der Lehre von den Keimkräften*, Bonn 1914, pp. 80 f., 212 f.

[2] In the early *De Gen. contra Manich.* i, c. 10 and i, c. 14 the creative activity of God is represented as extending over six days; but in the maturer *De Gen. ad Litt.* where he objects to the anthropomorphism of the Mosaic account (vi, 2) and first introduces the *rationes primordiales*, creation is held to be a single act—iv, 33 and 34; v, 6 and 17; vi, 1–5. For a brief history of the rejection of the six days of *Genesis* from the time of Philo and the early Alexandrians, Clement and Origen, cf. Meyer, *op. cit.*, pp. 133 f.

[3] For details cf. Meyer, *op. cit.*, pp. 165 f.

[4] He identifies the Holy Ghost with the world soul of Plato and thinks of the universe as being created from the Divine unity as number is from unity, cf. B. Hauréau, *Notices et Extraits de quelques manuscrits latins de la Bibliothèque Nationale*, Paris 1890, t. i, pp. 61 f.

[5] Cf. Duhem, *Le système du monde*, Paris 1915, t. 3, p. 187.

In the Middle Ages, and in fact until quite recently, the theories of animate generation, the second type of becoming, had made practically no advance since the time of Aristotle. Thus Bacon, who deals most fully with the problem, is content to follow Aristotle in saying merely that the parents have the power to reproduce their own form, in denying that their contribution comes from the whole of their bodies simply because of kinship and physical resemblances, and in maintaining that the semen, which can be only surplus nutriment, is not itself blood and flesh but that from which blood and flesh can be produced. Again, Scotus is dependent on Aristotle for his opinion that after the union of the male and female factors, the embryonic organs are produced successively; but he makes an important departure from Aristotle's analogy between natural and artistic production by granting an activity, on grounds which are perhaps questionable, to the female factor in generation. Further additions to Aristotle include Bacon's recognition of pre-natal influence,[1] Richard's theory that the semen contributes physical likenesses while the specific form, which it bears and which in some way comes from the soul of the father, contributes specific likenesses, and the general Scholastic opinion that the individual rational soul is infused when the bodily organs have been formed and the vegetative and sensitive souls (and perhaps the specific human form) have been developed. The anticipation in Bonaventura of Weismann's germ-plasm theory with its continuity of material underlying inheritance afforded a valuable alternative to Origen's explanation of the transmission of original sin by Traducianism, but it might also have been used to account for biological throw-backs as well as the inheritance of non-physical properties (cf. p. 389 *infra*).

The Scholastic theories of spontaneous animate generation and of artificial generation, the third type of becoming, which Aristotle had declared not to be becoming in the strict sense, have been sufficiently expounded in the previous chapters where their sources are also indicated.

[1] Cf. Augustine, *De Civ. Dei*, xii, c. 25.

MATTER IN ITS STATIC ASPECT

The two fundamental problems under this heading concern the entity and the varieties of matter. The difficulty of grasping the nature of matter had been recognized by philosophers since the time of Plato. Thus Plato's remark in *Timaeus* 52b that matter is knowable only by a spurious kind of reasoning or by negation was adopted by Aristotle, Augustine, Boethius,[1] and all the Scholastics. Plato, however, came to the conclusion that matter is best called receptivity because that which receives all forms should be formless—*Timaeus* 49a, 50a f., 51a. Aristotle, while agreeing with the substance of this conclusion,[2] proceeded to amend it, in *Met.* 1029a 1 and 1035a 1 going so far as to speak of matter as a substance and in *ibid.*, 1042b 1 and 1069b 6 as an undetermined substratum that supports contraries. This amendment was taken up by the Franciscans, while Albert the Great and St. Thomas treated matter as mere receptivity, in spite of the fact that by making it the principle of individuation they had allowed it some contributing part in the composite. Both Thomas of York and Scotus, by declaring that the actuality of matter is not the distinguishing and denominating actuality of form, but one *prope nihil*, yet rightly called act, because it has being outside its cause, clarified the Franciscan position which had the merit of stressing the importance of the potential and of pointing out that, while matter is non-being in relation to the process of becoming, it has being inasmuch as it is that which becomes and that which is a factor of the composite. Ascribing this imperfect actuality to matter, Pecham, Richard, and Scotus logically concluded that matter could, even if it did not, exist apart from form and ably supported their conclusion against St. Thomas.

The second problem concerning matter in its static aspect, namely, that of the varieties of matter, was one that, as Thomas of York pointed out, had been implicit in Aristotle but developed by Augustine and by the Arabians. Aristotle spoke of two varieties of matter—one, the subject of substantial and accidental becoming in corporeal beings, and another the subject of local movement in celestial bodies.[3] To the matters of the heavens and of the earth Augustine added a third variety, which he regarded as synonymous with the mutable factor of spiritual creatures.[1] Alfarabi increased these three varieties (he probably knew them through the works of Proclus) by a fourth, that of corporeity which he held to be common to celestial and to terrestrial matter.[2] This addition was assured to posterity by the Brothers of Purity, who in their encyclopaedia enumerated four uses of 'matter': the matter of artificial beings, the matter of natural beings (i.e. the four elements), universal matter or the absolute body, and lastly, original matter, the imperceptible primitive foundation of things.[3] Their third variety was developed at length by Avicenna [4] and was taken up, as we have seen, by Grosseteste, and more rigorously by Bacon, who, appealing to Avicebron, found that he conceived the matter of corporeal and of spiritual beings as differentiations of a universal matter. Avicebron also stressed the unity of the matter of generable beings, but the objection of Averroes that this unity could exist only for thought (cf. p. 68 *supra*) was adopted by Thomas of York, who spoke of the matter of natural beings as having only a potential unity, and especially by Bacon, whose strong opposition to anything suggesting monism led him to excess in positing hierarchies of matter and of forms in each creature, though it did not prevent him from following Avicebron in regarding the matter of corporeal and of spiritual beings as differentiations of *materia in genere generalissimo*.

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[1] Cf. Aristotle, *Met.* 1036a 8; Augustine, *Conf.* xii, c. 3, 5, 12; Boethius, *De Duab. Nat.*, i, c. 1.

[2] Cf. *Met.* 1007b 28 and 1032a 20.

[3] *Met.* 1069b 24.

FORM IN ITS STATIC ASPECT

The Scholastic doctrine of form's priority of nature as compared to matter was taken over from Aristotle, who had said that form has more reality than matter (*Met.* 1029a 5), that it has more separability and individuality (*ibid.*, a 27), that it has more causality (*De Gen.* 335b 34) and that it is something nobler and more divine (*Phys.* 192a 16 and *De Gen. An.* 732a 3).

This nobler factor, like matter, generable and corruptible only *per accidens*, is educed from matter by the operation of an agent, but since I have dealt already with the Franciscan conception of the eduction of forms, I shall pass to the question whether the incoming form is progressively realized. Bacon thought that it is, and allowed that a thing can both be white and not-white if the not-white is not yet completely realized and the disposition in matter for the not-white still only partially satisfied. On the other hand, he held that there can be no time when a thing is neither white nor not-white, because time is a continuum and cannot be arbitrarily divided into parts. To Bacon's quotation from Aristotle that no finite power can act instantaneously Scotus added a second which declared that when wine is made from vinegar, it must pass through the stage of water. The Subtle Doctor also believed that a progressive realization is suggested by the resistance offered by the objects acted upon, while Pecham and Richard suggested that such a realization is instanced in embryonic developments.

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[1] *Conf.* xiii, c. 33 and *De Gen. ad Litt.* vii, 6.

[2] F. Dieterici, *Alfarabi's philosophische Abhandlungen*, Leiden 1900, p. 99.

[3] Cf. F. Dieterici, *Die Naturanschauung und Naturphilosophie der Araber im X. Jahrh.*, Berlin 1861, pp. 2–3.

[4] Cf. *Met.* ii, capp. 2 and 3, f. 75ra f.

While the new form is being realized, the old one gradually recedes into the potency of matter. This last Scholastic phrase, so strange to us, has behind it a profound truth. Thus, in the case of water, hydrogen and oxygen have been combined under certain conditions and their forms have disappeared. Can it be said that their forms have been annihilated? Apparently not, for hydrogen and oxygen can be regained from water, while nitrogen, for example, cannot. It must be concluded, then, that they remain in some manner in the water of which they are the components. The same truth lies behind the Scholastic notion, drawn from Aristotle (*De Gen. et Corr.* 327b 29), that the elements remain virtually in the compound; they could not remain actually, else, as Pecham said, there would be not a compound but a mixture, or, as Richard said, two bodies would occupy the same place. Because of this receding of forms into the potency of matter, Hugh of St. Victor declared that nothing ever perishes—*Didascal.* i, 7.

Reverting to the educed form, we see that the Scholastics rightly insisted that it must be in some sense a universal if there is to be any univocal generation and if the classification with which science is exclusively preoccupied is to be other than arbitrary.[1] Without repeating the various historical summaries of the *pros* and *cons* for the independent reality of the universal given in the previous chapters, it is sufficient to remind ourselves that, although moderate realism had been previously assured to Scholasticism by the efforts of Abelard to reconcile the nominalism of Roscelin with the realism of William of Champeaux, Thomas of York's similar solution of the universals problem was due to his keen understanding of Aristotle and enriched by his knowledge of Avicenna, who had done great service by pointing out that the abstracted species became universal only when considered in relation to the many. Both Thomas and Richard of Middleton may have been unfortunate in speaking like Averroes of the potential existence of the universal in things, but their meaning is clearly that the *this* and the *such* are distinct, though inseparable, aspects of the real, the distinction being necessitated by the fact that a common character is manifested in many instances, and the potential existence of the *such* saving the real unity of the compound and at the same time allowing it that minimum of actuality that potentiality by contrast to negation is seen to have.

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[1] Aristotle had denied that forms could exist otherwise than in individuals. Boethius, following Porphyry, understood the universal as including genus and species, and thereby assigned the problem both to logic and to metaphysics—cf. *In Porphyr. a se transl.* i, *P.L.* 64: 82a and 85c f.

Once the independent reality of the universal is admitted, the problem of individuation arises. Implicit in Plato, more explicit in Aristotle, the problem became fully appreciated first by Thomas of York. As both he and Scotus realized, Aristotle had unconsciously proffered different solutions. Matter as the principle of individuation is suggested often, e. g. *Met.* 1016b 32, 1034a 5, 1035b 27, 1054a 34, 1074a 31 and *De Caelo* 278a 7 f. Form is suggested in *Met.* 1038b 14 and *De An.* 412a 6; finally, individuation is ascribed to the complex of matter and form in *Met.* 1033b 19, 1036a 28, and 1071a 27.

The first solution was adopted by Avicenna, Gundissalinus, and Bartholomew the Englishman, but its chief exponent was St. Thomas who, as we have seen, found himself in a difficult position regarding the individuation of the human soul and of the angels. The Franciscans rightly pointed out that matter as mere potency could not individuate; that, as quantified, it presupposed an existing individual; that the passages from Aristotle could only be taken to mean that matter is a *sine qua non*, but not the cause of individuation, and lastly, that the theory was completely out of harmony with Christian doctrine.

Aristotle's second solution was advocated by his famous commentator, who thought of the problem as asking why each individual has numerical unity and distinction from others (cf. p. 81 *supra*).

The third solution of Aristotle seems to have inspired Bonaventura, Thomas of York, Bacon, Pecham, and Scotus, though Thomas of York and Pecham laid stress on the form, and Bacon and Scotus thought of the individuating matter and form as an individual matter and an individual form added to the matter and form of the species. But Scotus departed from Bacon's double sets of entities in a being by regarding the individual matter and form as by themselves constituting an entity that determines the species from which it is separable only in thought. Hence he termed it *haecceitas*, but as he himself realized, and as Hegel later pointed out, thisness is common to the many, and the point about individuality is its uniqueness.

Scotus was more successful in his negative contributions to the problem. Apart from pointing out the weakness of the theory of matter as the principle of individuation, he attacked the other solutions that had been offered after Aristotle. Thus, he declared with Richard that accidents could not individuate [1] because they presuppose an individual subject of which they are the effect and because obviously individuality does not change with a change of accidents. Existence could not individuate [2] because it too presupposes a distinction of essences. Lastly, negation could not individuate [3] because it is the same in all and overlooks the perfection of the individual.

It seems, then, that there are objections to all of the solutions offered by the Schoolmen, and hence, whether or not we agree with Bossuet that the problem is insoluble, we are left to conclude that while knowing to a certain extent what we mean by an individual of any species, we cannot express our meaning in terms of simpler concepts. In this sense alone Bacon's verdict that the problem is a stupid one is justifiable.

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[1] Porphyry (*De Praedicab.*, *c. de Specie*) seems to have introduced this theory which was incidentally repeated by Boethius, *De Trin.* i, c. 1.

[2] Cf. Henry of Ghent, *Quodl.* ii, q. 8.

[3] Cf. Richard of St. Victor, *De Trin.* i, c. 17 and also Richard of Middleton, p. 228 *supra*.

THE COMPOSITE

The more general Scholastic doctrines of the composite were drawn from Aristotle. Thus in *Met.* 1033b 16 and 1042a 30 he asserts that it alone is generated because matter and form, its partial principles, are generable only *per accidens*, and in *ibid.*, 1045b 17 that it is a true unity, its matter being related to its form as potency to act.

The two more particularly Scholastic problems under this section are those of essence and existence and of substance and accidents. The former, which was brought into great prominence by Henry of Ghent in his *Quodl.* i, q. 9 (written *c.* 1276), was inspired not by Aristotle but by Boethius and Avicenna.[1] Boethius in his *De Hebdom.* spoke of the *quo est* and the *quod est* as being identical only in the First Being, and in his *De Trinitate*, c. 2 of the Divine substance alone as being its own essence. Avicenna in *Met.* i, c. 7, f. 73^{r}a and vi, c. 1, f. 91^{r}a distinguishes essence and existence on similar grounds, viz. that in everything other than the one necessary Being there is contingency and therefore a duality of essence and existence.[2]

The distinction between essence and existence having been raised, the mode of this distinction was keenly debated by the Scholastics. St. Thomas thought of it as real, meaning thereby that it existed in things independently of our thought. The Franciscans, assuming that a real distinction involved separability, rejected it on the grounds that existence, which is an essential perfection of *ens* giving it actuality and unity, would become an accident and that a third entity would be required to unite existence and essence and so the infinite regress would arise. On the other hand, they did not adopt the logical distinction of Godfrey of Fontaines since, as Boethius and the

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[1] Some of the Scholastics appealed to the *Lib. de Causis* for the distinction between essence and existence, but, as Duhem, *Le Système du Monde*, t. iv, p. 342 f., says, that was without reason; for the compiler of that work, like Plotinus and Proclus, uses essence and existence indifferently for that which the supreme Cause produces.

[2] Duhem, *op. cit.*, t. 4, p. 476 regards the distinction between necessary being and possible or contingent being as an Arabian innovation, saying that it was attributed by Averroes in *Dest. Algazelis*, Pt. I, desp. 4 to the Mutakallimûn and adding that there was a basis for it in Aristotle's *De Interp.*, c. 9. In any case, Avicenna's distinction between essence and existence had been previously formulated by Alfarabi, cf. Dieterici, *Alfarabi's philosophische Abhandlungen*, p. 109 f.

Arabians had proclaimed, essence and existence are only absolutely identical in God. They advocated a *via media* designed to bring out both the fact that existence in creatures is *ab alio* and that existence in the natural realm is inseparable from essence. The assertion of Richard that existence adds nothing absolute to the essence but only a real relation to the giver of the existence had the advantage of allowing that a possible essence has a degree of existence (Scotus called it an *esse secundum quid*) by which it is distinguished both from nothingness and from mere logical being which is incapable of existence outside the mind.

Once essence has received existence in the external world, we have a substance with accidents. The union between substance and accidents the Scholastics, like Aristotle (*Met.* 1025a 14), regarded as extrinsic, for the accidents can change and, indeed, for them, in the case of the Sacrament can exist apart from the substance.[1] The substance alone has *esse simpliciter*; the accidents only inhere, and hence, as Thomas of York pointed out, Aristotle called them *entia per substantias* (*Met.* 1028a 23). As to the manner in which the accidents inhere, the majority of the Schoolmen followed Aristotle (*ibid.*, 1027a 13) in supposing that they inhere in the composite primarily through matter; a few, like Scotus, held that certain accidents, such as quantity, inhere through the matter, and others, such as quality, through the form. In any case, the Schoolmen never conceived of the accidents as entities superimposed upon substance as a substratum, as is often supposed. Accidents were determinations of the determinable; and so in a sense the Schoolmen might have said that a substance is its accidents just as they might have said that matter is a synthesis of universals. But as apprehended by intellect both substance and matter are more, substance being definitely a mode of being that exists in itself.

I turn now to the various grades of composites. The Scholastic assignation of different degrees of nobility and perfection to different beings was inspired both by the account of creation in *Genesis*, wherein plants exist for the sake of animals and of man and animals are subject to man, and by the Neo-Platonic hierarchy, which found expression in Augustine (*De Civ. Dei*, xi, c. 16 and xii, c. 2) and especially in the pseudo-Dionysius. This hierarchy of the universe was repeated, as we have seen in our study of the plurality of forms, in the individual, the metaphysical grades in man being substantiality, materiality, the vegetative life, the sensitive life, and rationality. Let us consider now the lowest grades of existents.

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[1] See the curious sentence in Aristotle, *Met.* 1028a 30, where a temporal priority of substance is suggested.

COSMOLOGY

The elements, the most inferior of beings, which were for the Scholastics the earth, air, water, and fire of Plato's *Timaeus* and the ether of Aristotle's *De Caelo*,[1] may be dismissed, since the most important question concerning them, namely the manner in which they combine to produce compounds, has been already introduced. The next grade of beings, viz. the celestial bodies, had occupied a prominent place in Franciscan speculation since the introduction into the West of Arabian scientific works. The two most important questions raised in connexion with them concerned their number and their movement.

Plato and Aristotle had supposed that there were eight celestial spheres—those of the seven planets and that of the fixed stars, but Ptolemy had added a ninth. With the Patristic commentaries on *Genesis* i the 'waters above the firmament' were brought into the question. Augustine, like Origen, had interpreted these waters as signifying the invisible beings; [2] but Basil and Isidore of Seville accepted them literally as an aqueous sphere, the latter introducing a supreme sphere as the dwelling place of spirits. This introduction was taken up by Bede and assured to the Scholastics by Hugh of St. Victor's elaboration of the outermost sphere as the empyrean or place wherein the angels were created.[3] Beyond these spheres, the Scholastics, following both Plato (*Tim.* 31b), who had denied the Milesian tradition of innumerable worlds, and Aristotle (*De Caelo*, i, c. 8 and 9), who held that the universe is finite and that beyond it there is nothing, did not suppose that anything existed. Richard of Middleton, however, returned to the Milesian position by proclaiming the possibility of an infinite number of worlds, and thereby paving the way for modern science.

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[1] Cf. *De Caelo*, 270b 1 and 298b 6. Aristotle probably took this fifth element from the *Epinomis* (981) of Plato. For the genuineness of the *Epinomis* cf. A. E. Taylor, *Plato*, p. 497 f.

[2] Augustine, *De Gen. ad Litt.* i, c. 11.

[3] *Sent.* ii, c. 1.

As regards the celestial movements, the astronomical problem *par excellence*, Plato in *Tim.* 39 had ascribed to the planets (1) a diurnal East to West movement communicated by the sphere of the fixed stars, and (2) a West to East movement through the Zodiac. As to the earth in particular, he held, or at least ascribed to Timaeus, the Pythagorean, the theory of a slight oscillatory movement, though he ignored the Pythagorean theory of its revolution about a central fire.[1] In *Tim.* 39e f. the fixed stars, there referred to as gods,[2] have the same diurnal movement as the planets and also a revolution upon an axis oblique to that of the world. When the fixed stars and the planets stand in their original configuration, the grand year will be accomplished.[3]

Except in denying the mobility of the earth and the proper axial revolution of the fixed stars (cf. *De Caelo*, 286a 14, 288a 13, and 289b 1) Aristotle followed Plato; but his further mechanization of the purely mathematical system of Eudoxus and Callippus [4] into a homocentric system with circular uniform movements of a definite number of contiguous solid spheres (cf. *Met.* 1073b 38 f.) left unexplained two important problems: (*a*) the variations in the distances of the celestial bodies from the earth, variations apparent both in the changes in the brightness of Venus and Mercury and in the partial and total eclipse of the sun, and (*b*) variations in the size of the celestial bodies when in different parts of their spheres, variations visible in the changes in the diameter of the moon.[5] To meet these problems Ptolemy formulated his theory of epicycles and eccentrics,[1] which we have introduced in the foregoing pages. His theory seems to have remained unnoticed by medieval scholars until the time of the translation of the Almagest by Gerard of Cremona (cf. p. 4, n. 1 *supra*), and even after that, on account of a hypothetical incompatibility with sane physics suggested by Averroes and Alpetragius who were anxious to cling to the homocentric system, it was not accepted unconditionally before Richard of Middleton. This acceptance was due no doubt to the elucidation of the Ptolemaic system afforded by the introduction of Alhazen's *Optics* and *Summary of Astronomy*, wherein the futility of the arguments against Ptolemy was shown, and of the *De Motu octavae sphaerae* of Ibn Thâbit in which the movement of access and recess in the fixed stars was inspired by the Ptolemaic uniform precession of the equinoxes.[2]

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[1] Cf. Aristotle, *De Caelo*, 293a 27. The first person to advocate the revolution of the earth about the sun was not Heraclides of Pontus but Aristarchus of Samos (fl. 280 B.C.). The last ancient to hold this theory seems to have been Seleucus (fl. 128 B.C.)—cf. Duhem, *op. cit.*, t. i, p. 410 f. and T. Heath, *Aristarchus of Samos*, Oxford 1913, p. iii.

[2] Augustine (*Enchrid.* c. 58) had left open the question of reckoning the sun, moon, and stars among the angels, but Basil (*Hom.* 3 *in Hex.* § 9) and John Damascene (II *De Orth. Fide*, c. 6) had declared them insensible.

[3] For the probable Indian inspiration of this hypothesis cf. Duhem, *op. cit.*, t. i, p. 68 f. Though rejected by the Fathers (cf. Duhem, *ibid.*, t. ii, p. 447 f.), the theory was revived in the thirteenth century owing to the influence of Albumasar's *De Magnis Coniunctionibus* which estimated the grand year at 36,000 years.

[4] Cf. Heath, *op. cit.*, p. 217.

[5] These objections against the homocentric system were raised by Sosigenes (*fl.* first century A.D.)—cf. Duhem, *op. cit.*, t. i, p. 400 f.

Above the inanimate celestial bodies, the next grades of perfections in the universe are the plant and animal kingdoms; but since these received scant attention in the Middle Ages, I pass on to man, who ranks next in the hierarchy.

PSYCHOLOGY

The first attempt to establish at length the necessity for supposing that man has a factor other than the corporeal is found in Thomas of York, who ingeniously utilized various philosophical theses. His chief arguments of permanent value are: (*a*) If man's peculiar intellectual faculty or his inferior vegetative and sensitive faculties, which he shares with plants and animals, were an excretion of body, they ought to be found in all bodies; (*b*) A knowledge of the incorporeal and a consciousness of discordancy in the will could never be functions of body; (*c*) As Claudianus Mamertus argued, the scale of perfections in the lower creatures as well as the Divine omnipotence would count against a limiting of creation to corporeal beings;[3] and (*d*) As

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[1] According to Chalcidius (*Comm. Tim.*, p. 110), Heraclides of Pontus, a contemporary of Aristotle, had posited epicycles for Venus and Mercury. Chalcidius himself ascribes to the planets a movement on their epicycles and wrongly attributes this view to Plato—cf. Duhem, *op. cit.*, t. i, p. 404 f.

[2] Cf. Duhem, *op. cit.*, t. ii, pp. 185 f., 233 f.

[3] This argument was used by Hugh of St. Victor, *Sacr.* i, iv, 26. Argument (*b*) occurs in Augustine's *De Civ. Dei*, viii, c. 5. A second argument in Augustine (*De An. et eius Orig.* iv, c. 25) is based on the impossibility of the inexhaustible number of remembered images being contained in a soul that is corporeal.

Avicenna pointed out, the body weakens with age, but the soul becomes more perfect.[1]

Granting then that there is such an entity as the soul, how is it related to the body? In the foregoing proofs for its existence Thomas expressed the medieval rejection of epiphenomenalism, which, as a refined form of the materialism of Democritus, had been put forward by Simmias in the *Phaedo* (85 E. f.)[2] in his comparison of the relation between soul and body to that between a harmony and lyre. Dualism, a second possibility that had been transmitted from Plato by Augustine (*De Quant. An.* i, 13),[3] was the most favoured theory until the middle of the thirteenth century[4] when the Aristotelian view began to be disseminated. It had the advantages of supporting immortality and of recognizing the difficulty of interaction between such unlike natures as soul and body, a difficulty that later led to Malebranche's theory of occasionalism and to the Leibnizian pre-established harmony as modifications of the Cartesian dualism. The view of Aristotle had neither of these advantages. However, to the later Franciscans, trained in the Oxford experimental tradition and, no doubt, cognizant of the fact that immediate experience does not give a duality of soul and body, Aristotle seemed to have grasped part of the truth. Consequently, in their theory of the plurality of forms in man, which we have considered at length under Pecham and Richard, they happily combined the valuable elements both of Plato and of Aristotle, preserving the independent reality of soul and body as well as the true unity of man by their doctrine of the ordination of forms,[5] which supplanted the medium theory derived from the Stoic *pneuma* as transmitted by the Pauline trichotomy of body, soul, and spirit.[6]

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[1] Thomas would not have admitted that the concomitants of senile decay invalidated this argument. The common Scholastic opinion was that the faculty, e. g. sight, persists and would be perfect were a new visual organ supplied.

[2] Cf. p. 3 *supra*.

[3] In *De Civ. Dei*, xiii, c. 24 and xx, capp. 24 and 25, however, the dualism of Augustine is moderated by his opposition to the Manicheans, by his view of the Divine co-operation in the generation of the body, and by the doctrine of the resurrection.

[4] Perhaps the most extreme expression of it occurs in Hugh of St. Victor who asks: 'Quid enim est homo nisi anima habens corpus?'—*Sent.* i, 15.

[5] For an anticipation of this doctrine see the puzzling passage in Aristotle's *Met.* 1070a 20.

[6] In *De An. et eius Orig.* iv, c. 36 and *De Gen. contra Manich.* ii, 8 Augustine

This ordination of forms became particularly necessary when the Schoolmen began to follow Aristotle in thinking of the human soul as directly communicating to the body the sensitive and vegetative activities; and it was Bacon's failure to regard these lower souls as matter for the rational soul that led to his difficulty concerning the relation between them (cf. p. 158 f. *supra*). Aristotle himself had not been too clear on the problem, for, while he objected to Plato's view of the lower souls as 'parts' (*De An.* iii, c. 9), he merely supposed that the same soul discharges the reasoning and the lower functions. Alfarabi appears to have been the first to predict the Franciscan position wherein the inferior souls are matter for the superior rational soul—F. Dieterici, *Der Musterstaat von Alfarabi*, Leiden 1900, p. 59.

Of the problems that arise in considering the soul as abstracted from body, that of its origin is closely allied to the proofs for its existence. From what has been said under that topic it will be clear that the Scholastics denied the origination of the soul by a process of excretion from body. Their chief arguments were the soul's non-organic powers of ratiocination, of reflection, and of volition, and the Aristotelian assumption that there must be similarity and proportion between cause and effect. To Scotus, who maintained that the creation of the soul is known only by faith, these arguments did not seem to carry much weight.

Again, the Scholastics rejected the pre-existence theory of Plato and Origen because it made the soul too independent of body. Traducianism, which had been advocated by Tertullian [1] and, indeed, much later by Odo of Cambrai,[2] they rejected because it went to the other extreme of making the soul too dependent on body, although it had in its favour its harmony with the doctrine of original sin and might have been used to account for heredity.

identifies the Pauline *spiritus* with the rational factor of the *anima* which vivifies the body.

In passing, we might note the curious indifference of Bishop Tempier to St. Thomas's indiscreet adoption of the Aristotelian theory. St. Thomas's position would necessitate the giving of heat and of extension to the body by the spiritual soul, and also the generation of the *forma cadaverica* at the departure of the rational soul by primary matter which admittedly is indifferent to all forms.

[1] Augustine hesitates over it in *Retract.* i, 1, and in *De An. et eius Orig.* iv, 2.

[2] *De Peccat. Orig.* iii, *P.L.* 160: 1098 D.

Of two further possible theories, namely emanation from the divine substance and creation, the first was rejected because of its obvious pantheism,[1] and the second accepted because it acknowledged both our distinction from God and our dependence on Him. Possessing these advantages, the creation theory was reconciled with the doctrine of original sin by supposing that the corporeal powers transmitted by the parents were infected and that, as one of the terms of a relation, they could affect the soul which, as created by God,[2] was holy. This position was by no means critically examined. Original sin the creationists regarded as the loss of that original sanctifying grace which directly perfected our human nature and had as its formal effect the submission of the inferior powers to the superior ones and of the latter to God.[3] The specific form they acknowledged to be transmitted from parent to offspring. But they never sufficiently recognized that that which actually was inherited was not merely a tainted body but a tainted human body. No doubt such a recognition would have reduced the created soul to a sort of last individual form, but, on the other hand, there would have been some account of the fact that frequently the offspring shares in the spiritual (I use the term in its widest sense) as well as in the physical characteristics of its parents.

As regards personal immortality, the second problem arising under a consideration of the soul as abstracted from body, there was bound to be lively discussion on account of its universal interest, of the enhanced value that it gives to the present life, of the vagueness of Aristotle, and of the prominence of Averroism in the thirteenth century. Pecham [4] was the first of our Franciscans to enumerate the chief proofs offered since the earliest times. From Plato, indirectly through Augustine and other writers, he had (*a*) the consideration that the soul's seeking after the immutable indicated its true nature;[1] (*b*) the argument from the self-movement of the soul;[2] (*c*) the impossibility of dissolution in an incorporeal and simple being;[3] (*d*) the proof resting on the soul's desire for immortality and eternal happiness.[4] (This proof taken in conjunction with Aristotle's theory that nature makes nothing in vain (cf. *De Caelo*, 271a 34) acquired great popularity); and (*e*) the ethical proof which supposed that the just reward of good and the punishment of sin necessitated a life hereafter.[5] From Augustine Pecham had a sixth argument based on the ability of the soul to operate without organs;[6] but in Aristotle he rightly found no proof. A seventh argument, ignored by him but utilized by Gundissalinus[7] and Bonaventura,[8] rests on man's intermediate position between corruptible beasts and incorruptible pure spirits. It was inspired by Neo-Platonism and transmitted through the Arabians.

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[1] As a Manichean doctrine it was also rejected by Augustine, *Contra Fortunatum*, i, § 11 and *De Gen. ad Litt.* vii, c. 8.

[2] The favoured *Lib. de Causis* prop. 3 supposes that God used the intelligences in creating the soul.

[3] Other effects, according to Richard of Middleton, were exemption from pain, the immortality of the body, and the ability to resist mortal and venial sin without special grace.

[4] It is to be regretted that the views of Thomas of York have not come down to us, for he was well acquainted with the *De Statu Animae* of Claudianus Mamertus, a work written against Faustus in defence of immortality.

Without repeating the criticism of these proofs in Scotus (p. 316 *supra*), we may note that the first proof escaped comment. No doubt the reason for this is the recognition that the irreconcilability of the activity of our minds in apprehending the non-temporal with a mere temporal existence is one of the most cogent proofs of immortality. Briefly, the value of Scotus's criticisms lies in his emphasis on the fact that, while there is no direct evidence against the persistence of the soul after death, there is no evidence for such a persistence, and if there were, certainly no assurance against a gradual fading out of its vitality—a possibility allowed in the *Phaedo*.[9] As Plato realized, there can be only non-demonstrative considerations that are weightier for than against personal immortality, and that in the end immortality must be an article of faith—cf. *Phaedo*, capp. 55 and 56.

The *pros* and *cons* for the existence of matter in the soul were fully utilized by Thomas of York and by Richard, and need not be repeated here (cf. pp. 92 f., 103 f., 247, 262 *supra*). The points to be borne in mind are the Franciscan acceptance of Augustine's identification[1] of the matter in spiritual beings with their potency for existence and for change, and their desire to preserve the substantiality of the soul and thereby its independence of the body. Perhaps the most convincing passage in Augustine for the existence of matter in spiritual beings is that in *De Gen. ad Litt.* v, c. 5 which runs: 'Non itaque temporali, sed causali ordine prius facta est informis formabilisque materies, et spiritalis et corporalis, de qua fieret quod faciendum esset.'

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[1] Cf. Plato, *Phaedo*, capp. 25–34; Augustine, *Solil.* i, c. 15, § 29 and ii, c. 1 f.; and *De Immort. An.*, capp. 1 and 2.

[2] Cf. Plato, *Phaedrus*, 245c f. and *Laws*, 893b; Augustine, *De Immort. An.*, c. 9.

[3] Cf. Plato, *Phaedo*, c. 25 f.

[4] Cf. Plato, *Symp.* 206b where the desire for immortality is said to be satisfied by the perpetuation of the species; Augustine, *De Trin.* xiii, c. 8 and *De Civ. Dei*, xiv, c. 25.

[5] Cf. Plato, *Repub.* 608d f.

[6] Cf. Augustine, *De Immort. An.* i.

[7] *De Immort. An.* (*Beiträge* series, Bd. II, Hft. 3, p. 24).

[8] ii, d. 19, 1, 1, vol. ii, p. 458.

[9] Augustine insists that the self-movement of the soul depends on Divine co-operation—*De Immort. An.*, c. xi.

Having made the soul an incomplete substance in itself, the Franciscans could allow it a natural tendency for the body without supposing, with St. Thomas, that it was individuated by this *habitudo ad corpus*[2] which, of course, as a relation comes under the category of accidents. For them, whatever their particular theory of individuation was, the soul contained within itself its individuating principle.

We come now to the problem of the relation between the faculties of the soul and its essence. All Scholastics agreed that perceiving, thinking, willing, and remembering must be referred to that which perceives, thinks, wills, and remembers; which is to say, they recognized that a soul that was merely a stream of conscious states could never possess personal identity or uniqueness. For them, it had to be not only the present sensations of individual consciousness plus the permanent possibility of sensation but also a possibility of consciousness of past experiences. Their problem, then, concerned the manner in which the faculties are distinguished from the essence of the soul.

Augustine, who seems to have been the first to discuss the problem at length, while admitting the difficulty of knowing the nature of the soul, came, on experiential grounds, to the conclusion that the faculties must be essentially the same as the essence but relatively different—*Conf.* x, c. 5; *De Trin.* x, c. 11. Thus in *De Trin.*, *ibid.* he writes, 'I remember that I have memory, and understanding, and will; I understand that I understand, and will, and remember; and I will that I will, remember, and understand' and further on, as well as in *De*

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[1] *De Gen. ad Litt.* vii, c. 6.

[2] Such, too, was the opinion of Avicenna, *De Anima* v, c. 4, f. 25^{r}a.

Lib. Arb. ii, 19, he maintains that the power of self-consciousness in the reason and the feeling of freedom in the will support the relative independence of the faculties. As regards Augustine's famous comparison of the faculties to the Trinity, Scotus rightly pointed out that the comparison is not adequate; for, as Augustine admits (*De Trin.* xv, c. 22), while God *is* rather than *has* the Persons, the soul *has*, rather than *is*, its faculties.

The scriptural remark that man is made in the image of God possessed a great fascination for Christian philosophers from the time of Augustine. Isidore of Seville conceived of the soul as one in substance as well as in name—*Differentia*, ii, c. 29; Cassiodorus and Gregory the Great regarded the faculties as the soul in action; but Boethius implied the opposite view in speaking of the soul as a virtual whole (*Lib. de div.*, *P.L.* 64: 888a–c), and in this was supported by Anselm, who distinguishes at least between the will and the essence of the soul (*De Casu Diab.*, c. 8, *De Voluntate*, and *De Concept. Virg.*, c. 4). John of Salisbury noted two views in his day: (*a*) the soul is simple and has only one power that is diversified according to the diversity of objects, and (*b*) the soul is simple in quantity but composite in faculties.[1]

In the thirteenth century Scotus, following Pecham and Richard, ably pointed out the difficulties of the Thomistic position, which stressed to the utmost the distinction between the faculties and the essence.[2] But on the other hand, in asserting that experience and consciousness testify to the unity of the soul, he endeavoured to avoid by his formal distinction both that complete identity between power and essence, which is found only in God, and the supposition that a difference of objects reveals a difference of faculties.

We have now to consider the soul as active. From our account of the Franciscan views of cognition it will be clear that no closed theory was promulgated in the Oxford school. The main common doctrines, derived, of course, from Aristotle, declared that all perception involves a direct apprehension of objects and not of their likenesses in the mind; that the apprehension is possible because objects propagate likenesses or species which, being neither corporeal nor strictly spiritual, both afford the right proportion between objects and the senses and leave the senses undetermined and therefore capable of apprehending contraries; and lastly, that in the highly complex activity of perception, implying above all a recognition of the experienced object,[1] the phantasm is produced. The phantasm, being a likeness of the object, contains a potential universal and is, therefore, a *sine qua non* for all higher cognition in which universals are involved.

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[1] *Metal.* iv, c. 9.

[2] He might have also raised the question whether it was possible to give a content to the essence if it is really distinct from the faculties.

At this point, differences of opinion appeared. By what faculty is the universal elicited from the phantasm? Grosseteste and Bacon, apparently afraid of endangering the simplicity of the soul, maintained that it was elicited by one intellect functioning passively and actively. Pecham wavered between their opinion and that of Richard and Scotus, which, by interpreting Aristotle more correctly than Bacon, declared the elicitation to be due to two different factors actually existing in the intellect. It was left for Scotus to reconcile this opinion with the simplicity of the soul by means of his formal distinction between the active and the passive intellects. However, when it came to the active intellect itself, Bacon was right in taking Aristotle to mean that it came from without and was separable; but both Richard and Scotus, not caring to adopt Bacon's identification of the active intellect with God and still mindful of the condemnation of Latin Averroism by Bishop Tempier, assumed that the coming from without and the separability of the active intellect applied to its creation and immortality and, perhaps, to its comparative independence of sense activities.

Concerning the question whether the acquisition of universals is entirely empirical or whether it involves *a priori* elements in the mind, all the thinkers whom we have studied silently rejected Augustine's modification of Plato's connate ideas requiring the suggestions of the senses[2] for the Aristotelian view that only first principles are connate, and that inasmuch as they are evolved in the natural play of the faculties.

Once acquired, the universals are combined and distributed in the judgements made by the intellect, and it is to this process that the problem of truth applies, for, as Aristotle and Augustine said, intellection as such is always true and concerning the first principles that are *per se nota* the intellect cannot err.[1] A judgement is true only when it provides an *adaequatio rei et intellectus*, which, as Scotus realized, involves the scientific exploitation of repeated experience.

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[1] In *De Trin.* ix, c. 12 Augustine writes, 'Ab utroque enim notitia paritur, a cognoscente et cognito.'

[2] Plato himself seems to have dropped the reminiscence theory in the later dialogues.

In addition to this logical truth, which has for one of its terms a universal embodied in a continually varying sensible, the Scholastics inspired by Plato and Augustine posited an ontological truth, which meant the conformity of creatures to their prototypes in the Divine mind.[2] Hence the predecessors of Richard of Middleton declared that the most complete truth involves in addition to the adequation of intellect and object a vision of those objects in relation to their fullness in the mind of God. This vision, this harmony of the intellect with the Divine mind, requires in Platonic language a turning from sense objects, in Augustinian language the life of virtue, which restores the image of God in the soul. Consequently, truth in any complete sense is inaccessible to the vicious or to what might be called the non-spiritualized man. As Augustine would say, *knowledge* as cognizance of temporal things he may possess, but not *wisdom*, the cognizance of eternal things.[3] Thus in *De Civ. Dei*, x, c. 29 he says to the Platonists, 'Itaque videtis utcumque etsi de longinquo, etsi acie caligante, patriam, in qua manendum est, sed viam, qua eundum est, non videtis.'

After Thomas of York's protest against the Aristotelian neglect of Divine illumination, it is interesting to find Richard and Scotus supporting the Stagirite and confidently asserting that such an illumination would reduce the natural autonomy of the intellect[4] as well as rightly objecting that a vision of the prototypes would mean a supernatural knowledge of the Divine essence, since the prototypes are simply that essence as imitable.

In addition to perceived singulars and conceived universals, our Franciscans, from Bacon onwards, believed that there were good reasons for supposing that cognition also included a direct knowledge of singulars by the reason. Aristotle had criticized Plato's neglect of sense objects and had gone so far as to make one of the sciences, namely Physics, the study of being as it admits of motion (*Met.* 1025b 25 f.), but he had never asked whether scientific laws and generalizations, wherein universals are predicated of singulars, implied an intellectual knowledge of singulars. In fact, while allowing that singulars were known for all practical purposes, he frequently asserted that they were really unknown because indefinable (cf. *Met.* 1039b 20 f.)

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[1] Aristotle, *De Anima*, iii, c. 6 and *Post. An.* i, c. 3; Augustine, *De Trin.* xv, c. 10 and *Contra Acad.* i, c. 4 and iii, c. 3.

[2] Plato, *Timaeus*, 29; Augustine, *De Trin.* ix, c. 6 and xii, c. 2, and *De Lib. Arb.* ii, c. 8–16.

[3] Cf. *De Trin.* xii, c. 14.

[4] It should be remembered that unlike Aristotle both Franciscans allowed that the natural powers came from God.

The knowledge of singulars for Bacon and Pecham seems to be one derived by reflection, but with Richard we have something quite different, namely a knowledge implying a resolution of the singular into its rational parts. Scotus is less confident in the adequacy of our resolution and speaks simply of our vague apprehension of certain general *intentiones* of the *haecceitas*, though he admits that only our present need of phantasms stands in the way of such a resolution or of a knowledge of the singular *ut hoc*.

Besides the foregoing knowledge of corporeal beings the Scholastics adopted Augustine's declaration that man, unlike beasts, can be informed by likenesses other than those derived from corporeal beings. The great doctor had never tired of declaring that the soul can know itself and that, contrary to the Sceptics, its knowledge of itself is the most certain thing in the world, since in doubting all other things and in reflecting on its doubting, the soul knows that it exists and thinks.[1] Such a knowledge, which naturally was stressed by the Victorines, especially by Richard of St. Victor who recognized the incommunicability of personality, was taken up by Bacon, who interpreted the soul's knowledge of itself as a knowledge of its own contents. With Pecham, however, as with Bonaventura, this knowledge is something more, namely, a direct intuition of its own nature.[2] Richard and Scotus returned to Bacon's position by their insistence that the soul, at least in this life where it understands only by phantasms, can know itself only through its activities. As we have seen, they attempted to reconcile their opinion with that of Augustine by the saint's distinction between habitual and actual knowledge, but in reality this distinction could legitimately have been used only apropos of the gaps of consciousness in sleep, in injury to the brain, &c.

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[1] Cf. *De Trin.* x, capp 1–10 and xiv, c. 12; *De Enchirid.*, c. 20; *Solil.* ii, 1.

[2] So too Augustine, *De Trin.* x, c. 10. In *ibid.*, c. 9 and *De An. et eius Orig.* iv, c. 30 he remarks that we know ourselves immediately but the selves of others only by corporeal presentations, i. e. by inference. Probably neither Augustine nor the Franciscans intended that the soul as a subject could be the object of knowledge.

Of our knowledge of the existence of angels, a grade of incorporeal beings above the soul, Thomas of York had given the best account of the arguments supporting revelation. Like Plato, Aristotle, the Neo-Platonists, the Arabians, and his Christian predecessors, Thomas realized that there was no ground for denying the existence of beings other than those which we know through the senses. In fact, the hierarchical arrangement of the universe could not admit of there being no spirits intermediate between God and man, the disparity between these being so great. Besides, all things proceed from the First Being according to order. Bacon and Pecham, who were not so anxious to support their belief by reason, appealed rather to innate notions, thereby agreeing with Augustine, who says that the mind knows corporeal things through the senses but incorporeal things through itself—*De Trin.* ix, c. 3.

Believing in the existence of angels, the Schoolmen recognized the difficulty of attaining any adequate knowledge of them, for had not Aristotle said that there must be proportion between the knower and the object known and that our intellect is related to what is in itself most intelligible as the bat's eye to the light of the sun (*Met.* 993b 9)?

Our knowledge of God is primarily concerned with the proofs for His existence, and of those that had been offered previous to the thirteenth century Thomas of York has given a brief account. They were (1) the cosmological argument, which, starting from the mutability of creatures and declaring both that all which is moved is moved by another and that an infinite regress is impossible, arrived at an unmoved first mover,[1] (2) a variation of (1), which begins from the caused and contingent nature of creatures and develops along the same lines,[2] (3) the

[1] This was drawn from Aristotle's *Met.* xii, capp. 6 and 7; *Phys.* viii, c. 5 and, like the two following arguments, was most popular because it was supported by *Rom.* i, 20: 'Invisibilia enim ipsius a creatura mundi, per ea quae facta sunt intellecta conspiciuntur.'

[2] This argument may have been inspired by Aristotle's *Met.* 994a 5 f., but

teleological argument, which contends that the order and adaptation in the universe presupposes an intelligent ruler,[1] (4) the argument from our innate idea of God which appears in the common consent of mankind,[2] (5) Augustine's own argument, which maintains that relative truth implies the existence of immutable first laws,[3] and (6) Anselm's ontological argument, which supposes that if God, Who is the greatest conceivable Being, did not exist, we should be able to conceive of something greater, for the existent is greater than the non-existent.

By Richard and Scotus, as by St. Thomas, only the first three of these *a posteriori* arguments are admitted. Anselm's argument, which Daniels [4] has shown was not so characteristic of English theology as Seeberg [5] supposes, was put forward only by Thomas of York, ignored by Grosseteste and Bacon, modified by Pecham and Scotus, and definitely rejected by Richard as it had been by Gaunilo at the time of its formulation. None of our philosophers appear to have used a further argument in Anselm (*Monol.* 4), namely, that which concludes from the grades of perfection in the universe the existence of an absolutely perfect being.[6]

Turning to the will, the second faculty of the rational soul, which had been practically ignored by the Greeks, the Scholastics like certain modern philosophers had many views in common with Augustine. Thus they distinguished will from sense

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it is more probable that it came from the Arabians. After the Mutakallimûn emphasized the distinction between necessary and possible being, Alfarabi's conclusion that the existence of contingent beings presupposes a necessary cause was taken up by Avicenna: cf. p. 382 *supra* and Duhem, *Le système du monde*, t. 4, pp. 476–9.

[1] This argument was drawn no doubt from Aristotle's *Met.* 1075a 11 f., but in truth Aristotle regarded adaptation as the unconscious working of nature. The argument had good scriptural support and was put forward by John Damascene in *De Fide Orth.* i, 3.

[2] Thomas of York cites Cicero as his authority, but the argument appeared in Augustine (cf. *De Trin.* xiv, c. 12) and in John Damascene (*op. cit.*, i, c. 1) whom the Schoolmen usually cited for their authority. For Augustine's adoption of the previous arguments, see *De Civ. Dei*, viii, c. 6.

[3] Cf. *De Lib. Arb.* ii, c. 7–10, 12 and *De Ver. Relig.* c. 30–2. It was inspired probably by Plato's *Phaedo*, 100c f.

[4] *Quellenbeiträge und Untersuchungen zur Gesch. der Gottesbeweise*, &c. Münster 1909 (*Beiträge* series, Bd. VIII, Hft. 1).

[5] *Die Theologie des D. Scot*, Leipzig 1900, p. 33.

[6] For Aristotle's anticipation of this argument see Ross's *Aristotle*, London 1923, p. 179. It was used by Richard of St. Victor in *De Trin.* i, c. 11 and later by St. Thomas in *S. Theol.* i, q. 2, a. 3.

appetite; they regarded it as a movement of the soul accepting or rejecting objects without any intervention of external forces;[1] they identified will and freedom;[2] and they recognized that will apart from desire and knowledge is a psychological monster.[3] The last view is important for two reasons: firstly, it means that the Schoolmen acknowledged that true freedom is not capriciousness. As Scotus pointed out, freedom is not so much the power of choice as action in accordance with the highest and most characteristic elements of the self, whether, with Augustine, we think of this action as mastery over vice,[4] or, with Kant, as subjection to the moral law. Secondly, if volition implies a known object and knowing is an activity of the intellect which, like will, is essentially one with the essence of the soul, then volition must be, to a certain extent, character—a thesis which, as Bradley pointed out (*Ethical Studies*, 1st ed., London 1876, p. 46 f.), need not lead to the uncomfortable conclusion that all our volitions can be predicted, for character is what is being made out of our potentialities plus environment, and no one, not even the doer himself, can know all the potentialities, though as the self becomes a more unified whole, conduct becomes more predictable.

The Scholastic discussion as to whether the necessity of a known object for volition meant that the will was inferior to the intellect brought out many issues that have lost interest for us to-day; but four important points may be recalled: (1) Pecham's recognition that the will is conation as well as intellectual appetite—a recognition less obvious in medieval than in modern thinking; (2) the appreciation of the fact that attention, as an exertion of the will, is just as necessary for intellection as intellection is for volition; (3) the denial that knowledge is virtue, a denial based on the grounds that the intellect is merely directive, as is proved by the fact that the will can, and sometimes does, choose what it knows to be an inferior good; and (4) the Franciscan insistence that Aristotle allowed both the active life and the contemplative life to be the supreme good for man.

Scotus took up these points, but, mindful on the one hand of the extreme intellectualism of Godfrey of Fontaines and on the other of the teaching of Augustine and Anselm [1] that the will is the most fundamental faculty of the self, he endeavoured to bring out the interdependence of the intellect and the will—an interdependence that he stresses in his treatment of beatitude. He thereby opposes both St. Thomas, who exalts the intellect,[2] and Hugh of St. Victor,[3] who exalts the will; and he also supports experience, which shows that at the highest level of activity the entire personality is involved, and incidentally he countenances the opinion that salvation, philosophically speaking, involves the harmonious development of all our potentialities.

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[1] *De Duab. An.*, c. 10; *De Lib. Arb.* iii, 3.

[2] *De Lib. Arb.* iii, c. 2 f.

[3] *Ibid.*, c. 25; *De Trin.* x, c. 1–3.

[4] *De Civ. Dei*, v, c. 18 and xiv, c. 11.

Before ending my comments on the will, I should like to remark on the apparent indifference of Franciscan thinkers to Augustine's valuable observations that our will power and our responsibility are directly known to us and that only by free will can we deny the possibility of free will.[4] As stated in modern language this means that the feeling of freedom and the idea of 'ought' could never have arisen if we were determined. Lastly, it is curious that the supporters of the primacy of the will did not anticipate the Bergsonian doctrine that mind is predominantly spiritual in an act of volition.

As for memory, the third and last faculty of the rational soul, the scanty attention which it received was probably due to Augustine's identification of intellect and memory. For while in *De Civ. Dei*, v, c. 11 he speaks of memory, sense, and appetite as being given by God to the irrational soul and of intelligence and will as allotted to the rational soul, in *De Trin.* xiv, c. 12, and elsewhere, he appears to identify memory and self-consciousness. The important acknowledgement by Scotus that memory involves the recognition of time past came, of course, from Aristotle.

ANGELOLOGY

From the remotest times man had believed in the existence of beings superior to himself yet inferior to the supreme God, and this belief, transmitted to the Scholastics through the *Timaeus* and the works of Aristotle and his commentators, supported the authority of the Scriptures and the Fathers. Up to the time of Proclus the nature of these superior beings had been left an open question. Thus Justin, Tertullian, Cyprian, Ambrose, and Basil believed that they were not wholly immaterial, and Augustine countenances this belief when he speaks of the sense-perceptions of the angels (*De Trin.* xii, 7, n. 10) and of their ethereal bodies (*Quaest. 83*, q. 47 and *De Civ. Dei*, xi, c. 10). It was Proclus who emphasized their spiritual nature by declaring that they ought to be called intelligences because they originated in the intellectual life of the Demiurge,[1] and in this he was followed by the pseudo-Dionysius.[2] However, Gregory the Great, John Damascene, and Peter the Lombard still spoke of them as being corporeal in comparison to God, but after the Victorines the perfect spirituality of the angels was unquestioned, becoming with the Fourth Lateran Council (1215) an article of faith. Thus the thirteenth-century thinkers could argue that these perfectly spiritual beings were necessary as a crowning perfection of the universe.

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[1] For Augustine see *De Duab. An.*, c. 10, n. 14; *De Civ. Dei*, xiv, 6; for Anselm, *De Pecc. Orig.*, c. 4.

[2] *S. Theol.* i, iiae, q. 4, a. 1 and *Contra Gent.* iii, 33.

[3] *De Sap. animae Christi* in *P.L.* 176: 853o.

[4] *Conf.* vii, 3; *De Quant. An.*, c. 36.

As regards the origin of the angels, the Scholastics naturally rejected the Neo-Platonic and Arabian theory of an eternal emanation from God and declared for their creation, though the silence of *Genesis* gave rise to much speculation. While most of the Fathers allowed that they were created before all other creatures, Augustine in *De Civ. Dei*, xi, c. 9 wished that they should be identified either with 'the heavens' of *Gen.* i, v. 1 or with the light created on the first day, a light obviously different from natural light because the heavenly bodies were not created until the fourth day. The pseudo-Dionysius,[3] inspired by Proclus's view of a beginningless and endless time,[4] introduced the theory of their creation in *aevum*, a state that is eternal in comparison with the temporal order which begins with generable beings (Grosseteste spoke of it as *cum aeternitate*), and one in which there is no succession as regards the substantial perfections of the angels.

[1] *In Tim.* v, 290A f., ed Diehl, p. 165, 3 f. and *De Decem dubit. circa provid.*, c. 10, ed. V. Cousin, Paris 1864, p. 140 f.

[2] *De Div. Nom.*, c. 4, § 1 and c. 5, § 8; *De Cael. Hier.*, c. 4, § 1.

[3] *De Div. Nom.*, c. 10, § 3.

[4] *Instit. Theol.*, §§ 53–5 and § 88. Cf. also Duhem, *Le système du monde*, t. i, p. 246 f.

The angels, then, are created, non-temporal, and spiritual. But are they simple? We have seen that the medieval philosophers replied in the negative. Being contingent, the angels must possess, like all creatures, a composition of essence and existence; being mutable in thought and will, they must possess a composition of matter and form (cf. p. 391 *supra*); and being active only through factors other than their essence, they must possess a composition of substance and accidents. Their composition of species and differentiae was unquestioned by the Schoolmen before St. Thomas who, on account of his doctrine of matter as the principle of individuation, came to the logical conclusion that each angel must constitute a complete species,[1] and thereby revived the teaching of Avicenna and Algazel (cf. p. 105, n. 11 *supra*).

We come now to the angelic activities wherein succession is involved. Concerning their knowledge,[2] the chief question was how is it related to the temporal world. Like Albert the Great and St. Thomas who drew their inspiration from the *Liber de Causis* (prop. 10), which asserted that the angels were full of forms, Grosseteste and Pecham declared that the angelic knowledge was innate from the time of their creation. William of Auvergne, prompted by the remark of Boethius that what inferior powers can do superior ones can also do,[3] believed that their knowledge was received partly from the external world, and similarly Bonaventura, wishing to deny that the angels are pure actualities, ascribed to them an *intellectus possibilis*.[4] The view of William, which allowed the angels a capacity for development, was taken up by Bacon, Richard, and Scotus; however, they supposed that the angelic knowledge of beings external to themselves was derived not by a process of ratiocination dependent upon universals,[5] but by successive intuitions. Thus it included a direct knowledge of singulars, and, presumably, of universals, the common nature in singulars [1] They also allowed that inferior beings are known to the angels both through innate species and through an obscure vision of their prototypes in God.[2]

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[1] Theophrastus had asked how pure forms could be individual if Aristotle's more obvious doctrine of matter as the principle of individuation were accepted. In *Met.* 1040a 28 Aristotle remarked that certain eternal things, like the sun and moon, are unique.

[2] The intricate medieval discussions on this subject, well exemplified in Scotus, become more illuminating when we remember that it was thought that the soul after death would understand like the angels.

[3] *De Consol.* v, c. 4.

[4] St. Thomas curiously admits such an ascription only in an equivocal sense. Cf. *S. Theol.* i, q. 54, a. 4 and *C. Gent.* ii, c. 96.

[5] Augustine had allowed the angels sense perceptions. Cf. p. 400 *supra*.

The angels' knowledge of themselves had been admitted ever since the pseudo-Dionysius and the author of the *Lib. de Causis* had proclaimed them intelligible as well as intelligent. Concerning their knowledge of God, which *Matt.* 18: 10 supported by speaking of them as beholding the face of God, the Franciscans held that this knowledge must be limited, because no finite mind can comprehend infinite intelligibility and perfection. Apart from Grosseteste and Pecham, the men whom we have studied declared that besides a knowledge of God by infused and by innate ideas, the former being the more perfect, the angels could acquire such a knowledge from inferior creatures.

To the angelic will applied most of what has been said about the human will, especially as regards the influence of the intellect and freedom. The chief points of dispute were touched on by Scotus in his assertions that the angel is free from the moment of his creation and that the good angel, even though confirmed in goodness, is still capable of deliberation concerning the Summum Bonum.

The operations of the angelic will in relation to inferior beings applied both to man and to non-rational beings. Concerning the latter, for which there were only occasional Scriptural references (e.g. *Zech.* i: 11, *Rev.* vii: 3, viii: 5), the chief problem centred about the identification of the angels with the Aristotelian intelligences or star-spirits. Claudianus Mamertus had spoken of the stars as the bodies of the angels,[3] and Augustine had regarded the celestial bodies as animated,[4] but the problem became prominent only when the works of the Arabians were introduced into the West. Even when the Franciscans had accepted the identification of the angels and the intelligences in these works, Albert the Great and St. Thomas still hesitated.[1] In accepting the identification the Franciscans insisted that the angels were related to the celestial bodies only extrinsically inasmuch as they inspired the proper movements of these bodies *per modum desiderati*. By causing these movements, the angels were held to be indirectly concerned in the generation of all terrestrial forms, and hence the statement in *Lib. de Causis* prop. I, that the intelligences cause things was accepted while, at the same time, the Arabian view that they create inferior beings was avoided.

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[1] A third view held by Witelo (cf. Baeumker, *Witelo*, &c., Münster 1908, *Beiträge* series, Bd. 3, Hft. 3, p. 551 f.) denied both an innate and an acquired knowledge and advocated a sort of pre-established harmony between angelic knowledge and reality.

[2] Probably with Augustine (*De Civ. Dei*, x, c. 21) they would have denied this source of knowledge to the fallen angels.

[3] *De Statu Animae*, i, 12.

[4] *De Ver. Relig.*, c. 29. For the history of the theory of the animation of the heavens cf. Heut, *Origeniana*, II, ii, 8.

NATURAL THEOLOGY

The rationalism of the thirteenth century, which is naturally most conspicuous in theology, was but the continuance of the spirit of many of the Fathers who, as converts trained in philosophy, brought the influence of Greek thought to bear on Christian doctrine. There had been, indeed, a great decline in theological speculation during the perilous period from the sixth to the ninth century, but in the tenth century the utterance of Anselm—'Negligentia mihi videtur, si postquam confirmati sumus in fide, non studemus quod credimus intelligere'—must have called forth a general assent. On the introduction of the metaphysical works of Aristotle and of the Arabians into the West and on the closer relations between Christian and non-Christian there followed naturally the distinction between revealed and natural theology, both of which studied the same being but according to different methods. For the Franciscans, however, the distinction was never clearly marked, as perhaps it never could have been on the Catholic conception of revelation as that whereby God lifts man into a conscious and intelligent sympathy with the Divine intellect and will. Let us consider now a few of the more conspicuous problems admittedly included under natural theology.

The Scholastic denial of any composition in God, Whom they regarded as outside of the universe when they thought of the origin of creatures, but as part of it when they thought of the present actuality of beings, originated in the scriptural text *Ego sum qui sum* (*Exod.* iii: 14) and also in the speculations of Aristotle. In the text God had proclaimed existence to be of His very nature and Aristotle was taken as supporting this by his statement that the First Mover, implied by the movement of the universe, must possess an underived and eternal existence. The thesis of Aristotle reappeared in Plotinus and was transmitted to the Schoolmen through Augustine, who declared that being is the most proper attribute of God—*De Trin.* v, c. 2 and vii, c. 5.

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[1] St. Thomas in *C. Gent.* iii, 80 ascribes the motion of the spheres to the angelic order of Virtues, but Dante ascribes that of each sphere to one of the nine Dionysian orders.

Aristotle had also asserted that an eternal and necessary mover could not possess matter or potency for change, because change is a defect peculiar to imperfect beings. Augustine, like Boethius (*De Trin.* ii), revived this opinion, and on similar grounds denied the possibility of a composition of substance and accidents in God, saying that there can be no difference between that which God possesses and that which He is—*De Trin.* v, capp. 2 and 4; vii, c. 5; xv, c. 5 and *De Civ. Dei*, xi, c. 10. The last possible type of composition, namely, that of species and differentiae, could not have been entertained by monotheists.

This belief in the pure simplicity of God led the more philosophical of the Fathers to advocate a negative theology wherein all attributes of the Divine being were held to be merely subjective. Thus Clement of Alexandria went to the extreme of proclaiming that God is beyond the One and beyond the Monad (*Paed.* 1, 8, 71); and Augustine, following Plotinus, who allowed only oneness and not even intelligence (*Enn.* v, 4, 1 and 3, 11), declared that we can know what God is not but not what He is—a view that became firmly established after the insistence of the pseudo-Dionysius that God is super-essential in determination and that negations are more properly ascribed to Him than affirmations (*Cael. Hier.* 2, § 3). Eriugena even divided nature into *ea quae sunt* and *ea quae non sunt* and included under the *latter* God, primary matter, and the seminal natures—*De Div. Nat.* i, § 1 f. Against this Anselm reacted by saying that, while God cannot have a material or efficient cause, He cannot be *per nihil* for only *nihil* could be *per nihil*, and to call Him *nihil* would be equivalent to saying that whatsoever is is nothing—*Monologium*, c. 6.

However, the thirteenth-century philosophers, including St.

Thomas (*C. Gent.* i, c. 32–4), anxious to preserve the Divine simplicity, still clung to the old notion that attributal distinctions in God are subjective, though at the same time they did not hesitate to satisfy their religious impulses by speculating on the Divine nature and attributes, especially intellect and will. Finally, Richard of Middleton paved the way for the more consistent beliefs of Scotus that we can only escape agnosticism by supposing that, at least, the concept of being, which is most properly applied to God, is univocal for God and creatures and that attributes are *proprie* attributed to Him because they express something in the Divine fullness. It was by such an attitude (the formal distinction preserving the Divine simplicity) that Scotus gave content to Augustine's remark in *De Trin.* xv, c. 2 that although God is above mind, He is to be sought after, since to discover the incomprehensible is not to discover nothing, and at the same time expressed the feeling of every religious consciousness that while God is strictly unknown, He is not unknowable.

Of all the attributes assignable to God, Western thought, from the time of the rejection of gross anthropomorphism by Xenophanes and Plato, regarded intellect as the attribute most surely assignable to God. The supremely transcendental God of Aristotle was credited at least with thinking, though that thinking was limited to a self-contemplation, the pre-eminent type of that reflective activity which Aristotle recognized as characterizing the highest and fullest human life—*Met.* 1074b 34; *Nic. Eths.* 1154b 26 and 1170a 25 f. The Schoolmen found such a theory difficult to reconcile with their belief in God as the creator, conservator, and governor of the universe; but on the other hand, like Augustine,[1] they did not wish to suppose that God knew externals as we know them by discursive reasoning or intuitive perception, for such a knowledge would imply potency, succession, and imperfection. They surmounted the difficulty by declaring with Augustine,[2] as well as with Algazel and Averroes (cf. p. 111 *supra*), that God knows externals only inasmuch as His essence contains the exemplars of all things, i.e. He knows them only inasmuch as they have their source in Him.[3]

[1] *Conf.* xi, c. 31; *De Civ. Dei*, xi, c. 21 and *De Trin.* xv, c. 7.

[2] *Conf.* xii, c. 15; *De Trin.* xv, c. 7 and 13.

[3] Might they have avoided succession in the Divine knowledge by supposing

Thomas of York (cf. p. 111 *supra*) tells us that Averroes had pointed out that such a knowledge, because it was the cause and not the effect of things, could be neither universal nor singular. But Maimonides, whose arguments for attributing a knowledge of singulars to God Thomas of York accepts, interpreted the Commentator as definitely denying to God such a knowledge of externals, and it was really by his opposition to the Commentator that this still important problem came to occupy its prominent place in thirteenth-century thought, especially with Richard and Scotus, who defended the Augustinian view,[1] and also with St. Thomas, whose doctrine of matter as the principle of individuation ought to have led him to find a difficulty in the Divine knowledge of singulars.

The question of the Divine knowledge of externals naturally suggests the Platonic theory of Ideas. Plato had not made clear the relation of the ideas to God, but Plotinus[2] (*Enn.* v, 9, 9) definitely identified them with the Divine thoughts, and in this he was followed by Augustine (*83 Quaest.* q. 46) who transmitted the theory to his successors. This theory led to the conclusion that a creature has its truest and fullest existence when it conforms to the Divine pattern, a conclusion that has been raised too frequently in the previous pages to need discussion here. Suffice it to say that by it, the God of the Scholastics was the ground of the rationality of things, and could be really known as such and not, as with Kant, merely suggested to the mind by arguments that are incapable of verification in a possible experience and need to be supported by the evidence of our moral consciousness.

Of the problems relating to the Divine will which gives existence to these Ideas we will touch only on the most important. Firstly, it is necessary to realize that, like intellect, will is ascribed to God only in a special sense. It is not action consequent upon desire for something not yet present, since, as Aristotle knew, a perfect being could lack nothing. If anything could be said to move the Divine will in giving existence to the

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that God knows temporal beings as we know a melody without experiencing the succession of notes which is a part of its essence?

[1] *83 Quaest.* 46 and *De Civ. Dei*, xii, c. 18.

[2] Philo in *De Opificio Mundi*, §§ 6, 46, and in *De Posteritate Caini*, § 14 had already identified them. The first Christian to do so was probably Eusebius of Caesarea (d. *c.* 340).

ideas, the Scholastics believed that it could be only the superabundance of goodness spoken of by Plato in *Tim.* 28 c f. and by Augustine in *Conf.* xiii, c. 2. Apart from goodness, the only possible answer, Augustine pointed out in the *De Gen. contr. Manich.* i, 2, to the question why God has made the universe is—because He willed it; if the Divine will had a cause there would be something preceding it. This attitude, which assumed its extreme form in Hugh of St. Victor, who declared that God does not will things because they are just, but things are just because God wills them, has to be reconciled, as Scotus saw, with other passages in Augustine where the despotic character of the Divine will is modified by the directive influence of the Divine intellect, cf. *De Trin.* iv, c. 1; *83 Quaest.* q. 46; *Conf.* i, 6.

In actualizing these ideas does the Divine will pass from potency to act? The Scholastic discussion of the problem seems to have added little to the negative contribution of Augustine. The Saint in proposing the question what was God doing before he created the world was using the Aristotelian conception of God as perpetual energy when he declared that creation is a timeless essential activity of the Divine nature and that to speak of a before and after in respect of the Divine activity is anthropomorphic—*Conf.* xi, capp. 9–14 and *De Civ. Dei*, xii, c. 7. Finding himself unable to accept the Platonist substitution of a beginning of cause for a beginning of time, a substitution which avoided the succession implied in the unfortunate 'In principio' of *Genesis*, Augustine was forced to insist that the notion of succession, which colours our knowledge, deludes us into thinking we are considering the method of Divine activity when we are considering human activity, and that therefore we must accept on faith both a creation in time and the unchangeableness of the Divine will, the latter being supportable by our knowledge that change means imperfection—*De Civ. Dei*, x, c. 31; *Conf. ibid.*, xii, c. 15; xiii, c. 16.

We have seen how Richard, after accepting this point of view by declaring with Grosseteste that creation is not analogous to ordinary becoming, suggested with Bacon and Scotus that creation might be another instance of that type of change in which only one term of the relation is affected, e.g. in the case of paternity the change applies only to the offspring, and that creation and conservation were distinct only from our point of view.

The preservation of the immutability of the Divine will, as well as the desire to follow Aristotle and yet avoid a necessary universe, led the Arabian philosophers to formulate their doctrine of eternal creation, which was in reality a glorified Neo-Platonic emanationism designed to comply with the thesis of Proclus that an effect produced by a perfect cause is necessarily eternal. Maimonides the Jew, who had still more pressing needs for reconciling Aristotle and revelation, after acutely considering the problem, came to two conclusions: (*a*) that Aristotle never meant his theory to have finality, and (*b*) that an eternal creation could not be disproved by reason. By the beginning of the thirteenth century a number of Christians were either declaring that Aristotle had taught a temporal beginning of the world or supporting the possibility of an eternal creation (cf. p. 43 *supra*). It was St. Thomas who maintained with Maimonides that no adequate philosophical argument could be brought against either an eternal or a temporal creation and especially not against the latter, for it is possible that actualization in time might be a part of the eternal decree. His interpretation of Aristotle underwent variation, for in the opusculum *In articulos fidei* as opposed to the earlier *Sent.* ii, d. 1, q. 1, a. 5 he rightly admitted that Aristotle did not teach creation, while in the *Comm. on the Physics* (vii, c. 1, § 2) he attempted to show that Aristotle's principles ought to have led him to an eternal creation. But as we know, the God of Aristotle only causes things inasmuch as He is the final cause of the universal movement which produces things.

Finally, the condemnation by Bishop Tempier of an eternal creation led Richard of Middleton to insist rightly that creation means the production of something new and that 'new' is a time determination. Grosseteste had previously performed the service of denying that a temporal creation involved a succession of events *a parte ante*, for, as Augustine had pointed out,[1] time with its succession belongs only to the corporeal motion of creatures, and the world was made not *in* time but *with* time.

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[1] *De Civ. Dei*, xi, c. 6 and xii, c. 15; *Conf.* xi, capp. 30 and 31. Augustine no doubt was inspired by Plato's *Timaeus*, 37 B–C.

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